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Dissertation Title:

***A critical investigation and re-assessment of
the composition history of
J.S.Bach's 5th Suite for
Unaccompanied Violoncello, BWV 1011***

*Thesis submitted in partial fulfilment of the requirements for the degree of
Doctor of Philosophy in Music*

By Andrew Hill, MA, MSc, LTCL, LRSM

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Preface

Andrew Hill was sadly unable to submit a final version of his thesis before he passed away on 14 November 2011. However, having discussed an earlier complete draft with his supervisors, Andrew sent a final draft of the entire thesis to his supervisors shortly before he died which his supervisors agreed was in a sufficiently completed state to be worthy of examination. The supervisors were confident that the work met the criteria for the award of a PhD and the thesis was submitted to two independent examiners who also agreed that the thesis merited the award of a PhD.

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Abstract

The research which led to the writing of this thesis started from the author's dissatisfaction with the available editions of Bach's Cello Suites. Questions could not be answered concerning the quality and accuracy of the text, compounded by uncertainty about performance practice in Bach's circle. Nothing but a fundamental and comprehensive return to the roots of the problem, i.e. to the sources themselves, could help to achieve an understanding of the text which would be sufficient to perform and teach these works.

In order to achieve the level of analytical detail needed to satisfy the objectives of the research, it was decided to select the 5th Cello Suite BWV 1011 from the set of six Cello Suites as the main subject of this study. BWV 1011 is especially interesting for this study for two reasons. Firstly, BWV 1011 is written in scordatura in three of the surviving sources, providing much information about the copyists themselves and contemporary performance practice. Secondly, there exists an autograph additional source by Bach of this work transcribed for lute (BWV 995), bringing extra information about Bach's intentions.

After an introduction to the sources of the Cello Suites and of related works for violin and lute, this thesis describes in detail all of the differences between the sources in the notes, articulation and ornaments, drawing conclusions about the habits and relative reliability of the copyists and of Bach himself, and accumulates information about performance practice.

Finally, conclusions are drawn about the relative reliability and importance of each source, leading to the conclusion that the copy by Anna Magdalena Bach may be the least reliable, which is significant for cellists and editors because all of the most frequently used modern editions are mainly based on Anna Magdalena's copy.

*A critical investigation and re-assessment of the composition history of J.S.Bach's 5th Suite for
Unaccompanied Violoncello BWV 1011*

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Acknowledgements

The research which is described here would not have been possible without the regular, thoughtful and illuminating guidance and suggestions from my two internal supervisors at the Open University, Professors Donald Burrows and David Rowland. I am deeply indebted to them for their patience and assistance from the period of initial research up to the final evolution of the theories which have been developed.

Along the way, I was also given invaluable help on several aspects from my external supervisors Professor Peter Williams and Dr. Tim Crawford. Special thanks are also due to Dr. Peter Wollny and his colleagues at the Bach-Archiv in Leipzig for assistance on a number of points.

Thanks are due to all of the libraries which hold the manuscripts discussed in this thesis for permission to reproduce certain sections of the manuscripts in the thesis, and to the librarians who have been very helpful in providing access to the manuscripts in their collections, notably at:

The Royal Library and the Conservatoire Library in Brussels,

The Staatsbibliothek zu Berlin – Preussischer Kulturbesitz, Musikabteilung mit Mendelssohn-Archiv,

The Österreichische Nationalbibliothek in Vienna,

The Conservatoire Library in Geneva.

Finally, I would like to thank my wife Anne-Marie for her constant support, patience and many useful ideas during the long hours of study, the trips to foreign countries, and the writing of the thesis.

*A critical investigation and re-assessment of the composition history of J. S. Bach's 5th Suite for
Unaccompanied Violoncello BWV 1011*

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Preface

Terminology and conventions used in this dissertation

Tables providing statistics and detailed analysis of the manuscript sources are provided in the Appendix of the thesis. Figures illustrating the conclusions are included within the main body of the text.

Throughout the dissertation, Johann Sebastian Bach (1685–1750) will be referred to as 'Bach', and Bach's second wife Anna Magdalena (1701–1760) will be referred to as 'AMB'. Bach's sons will be referred to by spelling out their initials, e.g. C.P.E.Bach. Bach's pupil Johann Peter Kellner (1705-1772) will be referred to as 'Kellner'.

The title 'Bach's Violin Solos' will be used to refer to the set of Sonatas and Partitas BWV 1001 – 1006 and title 'Bach's Cello Suites' will be used to refer to the set of Suites BWV 1007 – 1012. These titles are conveniently short, are close to the terms used in the source manuscripts, and are consistent with the terminology adopted by Ledbetter¹.

Bach's keyboard publications will be referred to by the term Clavier Übung, as it appears in the facsimiles of the original publications published by Fuzeau. Other terms such Clavierübung or Clavier-übung are sometimes used in modern literature.

The Helmholtz convention for indicating note pitches will be used in order to clarify which octave is being discussed for each note². Each Helmholtz octave starts on C and ends at B (C, D, E, F, G, A, B). The note C is shown in different octaves in the following sequence, from low to high: C₁₁, C₁, C, c, c', c'' and so on. The so-called middle C on the piano is designated c', therefore the octave upwards from middle C is c'-b'.

Two conventions will be used to facilitate standardised comparison of notes which have been transposed in the different sources:

1. Any notes which have been transposed because of the use of scordatura³ in any of the manuscripts will be referred to by their sounding pitch, with their written pitch given in brackets. For instance, where the scordatura transposition means that a sounding c' is written as d', then the text will indicate c' (scord.d').

¹ Ledbetter, David. 2009. p.3.

² Hermann Ludwig Ferdinand von Helmholtz (1821-1894) developed this system of notation in order to define pitches accurately in his book on acoustics *Die Lehre von den Tonempfindungen als physiologische Grundlage für die Theorie der Musik* (1863).

³ The use of scordatura will be fully described in section 3.1.

2. When making comparisons to the autograph manuscript copy of the Lute Suite BWV 995, in which the notes of BWV 1011 have been transposed up by an interval of one fifth from C minor into G minor, the notes will be referred to by their original pitch for cello before transposition, but with their actual pitch for performance on the lute given in brackets, e.g. C (lute G).

Following the terminology used by Neumann, any small note written before another, normal-sized note will be given the general term 'grace-note'¹. This term is intended to avoid any implication that the small note should be played before or on the beat.

The term 'trill' will be taken to mean any ornament indicated in the manuscripts by 't', 'tr' or the sign '  '.

For the 'cadence' ornament², the more modern term 'turn' will be used. The symbol which Bach used for this ornament was written more or less vertically, like a letter 's', while today it is usually written horizontally, something like '~'.

Definitions related to articulation which will be used are:

Articulation: any indication of local grouping or detachment of the individual notes within a phrase. Articulation signs could consist of dots, slurs, dashes, etc.

Phrasing: a larger scale organization or structure of the music into the equivalent of sentences and clauses (usually exceeding a bar's length).

Slurred notes: a group of notes of different pitch which are grouped together by a curved line above or below the notes.

Detached notes: a group of notes which are not slurred, but are to be sustained for nearly their full notational value, with just a slight break between each note.

Staccato notes: notes which are to be sustained for significantly less than their notational value, and with a break before the next note.

When analyzing possible errors in the source manuscripts, the term 'musically correct' will be used to mean that the harmony is maintained for the passage where the difference occurs, and if there is a sequence or a repeat of the same passage in the same movement, then the sequence is maintained or the repeat accurately follows the original.

¹ Neumann, Frederick. 1978. p.47.

² Illustrated by Bach in the Explication contained within the *Klavierbüchlein für Wilhelm Friedemann Bach* (discussed further in chapter 6).

The source manuscripts which will be analysed will be given abbreviated identifiers for ease of reference, as follows¹:

Sources for BWV 1011 (5th Cello Suite in C minor):

CAMB: The manuscript of BWV 1011 within AMB's copy of the Six Cello Suites.

CKellner: The manuscript of BWV 1011 within Kellner's copy of the Six Cello Suites.

CBerlin: The manuscript of BWV 1011 within the anonymous copy of the Six Cello Suites from the second half of the 18th Century, which is now in the Staatsbibliothek of Berlin.

CVienna: The manuscript of BWV 1011 within the anonymous copy of the Six Cello Suites from the late 18th Century, which is now in the Nationalbibliothek of Vienna.

LCJSB: The autograph manuscript by Bach of the lute suite BWV 995, transcribed from BWV 1011.

LTAB: The manuscript copy of LCJSB in tablature notation now in the Musikbibliothek in Leipzig.

Sources for BWV 1006 (3rd Violin Partita in E major):

VJSB: The manuscript of BWV 1006 within the autograph fair copy of Bach's Violin Solos.

VAMB: The manuscript of BWV 1006 within AMB's copy of Bach's Violin Solos.

VKellner: The manuscript of BWV 1006 within Kellner's copy of Bach's Violin Solos.

LVJSB: An autograph manuscript by Bach of the suite BWV 1006a, probably written for lute, transcribed from BWV 1006.

The reasons for including the sources for BWV 1006 in this study will be explained in section 1.4. In each identifier listed above, the first letter indicates the instrument for which the manuscript was written (C for cello, V for violin and L for lute). For each lute transcription, the second letter (C or V) indicates whether it was transcribed from a source for cello or for violin. Each identifier also contains an indication of the scribe, if known, and if not known then it identifies the current location of the source (Berlin or Vienna, which are not necessarily the locations where the sources were originally produced). In the case of manuscripts such as CAMB, which are part of a larger set, references to the complete set will use the complete name, such as 'AMB's copy of Bach's Cello Suites'.

¹ Full library references and dating information for the sources are given in chapter 2.

References and editions

References to books, articles, theses, recordings, critical commentaries of editions and internet sites will be provided in abbreviated footnotes in the text, giving author, date and page number where relevant, with the full reference in the bibliography at the end of the main text of the dissertation.

The modern collected edition '*Johann Sebastian Bach: Neue Ausgabe Sämtliche Werke*', published by Bärenreiter, will be referred to by the commonly-used abbreviation NBA (*Neue Bach Ausgabe*). At each point of reference, the relevant volume and page number will be provided.

Where references are made to the musical text in published editions, only the author, work, movement and bar(s) will be indicated in the body of the text. Editions which will be referenced in this way are:

Beisswenger, Kirsten. 2000. *Johann Sebastian Bach. Sechs Suiten für Violoncello solo*. Edition Breitkopf 8714. Wiesbaden, Germany.

Eppstein, Hans. 1988. *Johann Sebastian Bach. Sechs Suiten für Violoncello Solo*. Bärenreiter BA 5068. Kassel, Germany.

Eppstein's 1988 edition for the NBA is an important reference for this thesis, as it has been used as a starting point for most modern performing editions of Bach's Cello Suites. However, Eppstein actually provided two versions of the Cello Suites in this edition, which will be referred to here as NBA-cello1 and NBA-cello2. The note pitches and lengths in these two versions are identical, but the articulation and ornaments in NBA-cello1 are based on the manuscript sources of the Cello Suites copied by AMB and Kellner, and those of NBA-cello2 are based on the two anonymous manuscript sources of the Cello Suites.

Hoppstock, Tilman. 2001. *Johann Sebastian Bach – Das Lautenwerk im Urtext für Gitarre. Suite in A minor*. Prim. Darmstadt, Germany.

Koonce, Frank. 2002. *Johann Sebastian Bach – The Solo Lute Works*. Kjos. California.

Leisinger, Ulrich. 2000. *Johann Sebastian Bach. Suiten für Violoncello solo*. Wiener Urtext, Schott, Vienna, Austria.

Markevitch, Dimitry. 2000. *Bach. Six Suites for Solo Cello*. J.S.Bach. [Theodore] Presser. USA

Schwemer, Bettina and Woodfull-Harris, Douglas. 2000. *Bach. 6 Suites a Violoncello Solo senza Basso*. Bärenreiter. Kassel, Germany.

Wenzinger, August. 1950. *Bach. Six Suites for Violoncello Solo*. Bärenreiter BA 320. Basel.

Where reference is made to the critical commentaries published under the same cover as the above-mentioned editions, the normal page references will be given.

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1 Introduction

1.1 Context

Bach is thought to have composed most of his six Cello Suites BWV 1007-1012 as a companion volume to his Violin Solos, while he was working as Hofkapellmeister and Director of the orchestra at the court of Prince Leopold of Anhalt-Köthen in the period 1717 to 1723. Some of the Suites may have existed a little earlier as sketches, and the 6th Suite may have been completed only after Bach moved to Leipzig in 1723¹. The Suites which were composed in Köthen were probably intended for performance by Bernard Christian Linigke (1673-1751), the resident cellist in Köthen, or by Christian Ferdinand Abel (1682-1761), the resident gambist who is thought to have played the cello as well.

Bach must certainly have been inspired by the opportunities of the dynamic musical life at the court of Prince Leopold, but this was also a dramatic period in his life². While he was away with the Prince in Karlsbad from May-July 1720, Bach's first wife Maria Barbara died, and was already buried when he returned. This shock was followed by further changes arising from his marriage to Anna Magdalena Wilcke in the autumn of 1721. It is truly extraordinary that, while these emotional events were taking place, Bach was able to continue with his compositional work, producing not only the Cello Suites but also other major instrumental works which are recognized today as masterpieces in their genre, including:

The six Violin Solos (BWV 1001-1006)

The three Sonatas for Viola da gamba and Harpsichord (BWV 1027-1029)

The six Brandenburg Concertos (BWV 1046-1051)

The first volume of the Well-Tempered Clavier (BWV 846-869)

The six so-called French Suites (BWV 812-817)

The two-part and three-part Inventions (BWV 772-801)

Nearly three hundred years after they were composed, Bach's Cello Suites remain popular with performers and audiences, almost every major cellist of the last seventy years has recorded them, and they have been the subject of many books, theses and articles, the most significant of which are listed in the bibliography of this dissertation. It might therefore be expected that all possible research avenues would by now have been explored and that all open questions would have been answered to the extent that would ever be possible, so it is perhaps surprising that research interest actually seems to have increased in the last five years, including notable books by Arnold Winold³, David Ledbetter¹, Jerome Carrington² and Eric Siblin³, and significant articles by Martin Jarvis⁴ and Mark Smith⁵ among others.

¹ Ledbetter, David. 2009. p.10.

² Described for instance by Williams, Peter. 2007. pp.122-160.

³ Winold, Arnold. 2007.

There are at least three reasons for this continuing and even increasing research interest. Firstly, the Cello Suites are the very core of the cello repertoire, providing a perpetual challenge for performers from intermediate level to the very top virtuosi who are seeking to produce a truly satisfactory interpretation. The following quotation from Rostropovich summarises very well the challenge which these Suites offer⁶:

Now I must pluck up courage and record all the Bach suites, as I have been so closely linked to them throughout my life. Nothing in the world is more precious to me than these suites, which always allow you to discover something new. Each day, each hour, each minute you reflect upon them, you reach deeper. You think you know everything about them, but no, next day you discover something new.

Secondly, when they were written, the Suites were simply revolutionary for the cello repertoire. Although composers such as Colombi, Gabrielli and degl'Antonii had composed single-movement works for solo cello in the late 17th century, and many suites had been written for the viola da gamba, nothing on the scale of a complete suite had been attempted before for the cello. It is remarkable that Bach envisaged six such monumental works for solo cello, challenging the technical limits of the instrument, when he is not known to have been a cellist himself, the cello was at that time a comparatively new instrument, and cello technique had not yet stabilized.⁷

Thirdly, there is an aura of mystery surrounding these Suites because of the many remaining unanswered questions which they pose concerning performance practice, questions which have taxed scholars ever since the Suites became popular in performances about 100 years ago.

This mystery mainly arises from the fact that no original autograph manuscript by Bach is known to exist today. Only four 18th century manuscript copies of the complete set of Cello Suites are known to have survived, all by different scribes:

One by AMB

One by Kellner

Two by anonymous scribes working in the second half of the 18th Century

¹ Ledbetter, David. 2009.

² Carrington, Jerome. 2009.

³ Siblin, Eric. 2009.

⁴ Jarvis, Martin. 2006.

⁵ Smith, Mark. 2009.

⁶ Rostropovich, Mstislav. 1995.

⁷ For instance, today's standardised fingering was documented for the first time some 80 years after Bach composed his Cello Suites, in Duport, Jean-Louis. 1806.

These surviving sources will be fully described in chapter 2. Unfortunately, they all differ substantially in the note pitches and rhythms, the articulation signs and the ornaments, and the differences are difficult to reconcile. Editorial choices for a performing text have to be made on the basis of a complex balance between the sometimes conflicting desires to be as close as possible to what are presumed to be Bach's intentions, to respect the evidence of the sources, to take account of the technical limitations of the instrument, and to maintain the harmonic and melodic continuity of the music.

There has been much speculation about the possible original sources from which the surviving sources were derived. For instance, was there more than one autograph fair copy, and if so how many were there and what may have happened to them? Was there indeed ever a fair copy at all? How do the surviving sources relate to each other and to the (lost) original sources?

The first authoritative theory for the likely relationships between the four sources was provided by Eppstein¹, while the most significant contributions since Eppstein have been provided in the critical commentaries of the editions by Schwemer and Woodfull-Harris, Leisinger and Beisswenger.

For nearly all editions (with the notable exceptions of the editions by Leisinger and Markevitch), the starting point used by the editors has been the manuscript by AMB. The main reason for this seems to be that AMB was a key member of the Bach household, and therefore can be assumed to have been copying from the best available source, probably under some level of supervision from Bach himself. The other sources for the Cello Suites have therefore usually been used simply as reference material to make corrections for the cases where AMB's copy seems to contain an error.

Similarly, most of the books published on Bach's Cello Suites, such as those listed above by Winold, Carrington and Siblin, make the assumption that AMB's copy is the most reliable source². For instance, Winold suggests that AMB was copying from a 'fair copy', and that 'Scholars and performers generally agree that the copyist's manuscript by Bach's second wife, Anna Magdalena, is the most important and reliable source'³.

However, the reasons which are provided for favouring AMB's copy as the most significant and reliable source for BWV 1011 are not convincing. The other copyists may have had access to an original source of better quality, or they may have copied more carefully. This possibility does not seem to have been fully explored before in the literature, yet it may suggest ways to resolve some of the outstanding questions about interpretation. It has been partially recognised in the editions produced by Eppstein and by Leisinger, but even these

¹ Eppstein, Hans. 1990. pp.18-26.

² In the book by Ledbetter, which is also listed above, there is no comparative discussion of the sources for the Cello Suites.

³ Winold, Arnold. 2007. p.9.

scholars have not provided a completely satisfactory analysis of the relationships between, and relative importance of, the surviving manuscripts, as will be discussed later in this dissertation.

The unsatisfactory state of the available literature and editions outlined above means that the cellist who is today endeavouring to create a performance which represents Bach's intentions is confronted with a bewildering volume of sometimes contradictory advice concerning interpretative choices for the note pitches, rhythms, articulation, ornamentation, and other aspects of performance such as tempo and dynamics¹. Several scholars have provided lists of the most significant differences between the surviving sources, notably Eppstein², and useful conclusions have been drawn from well-chosen examples, but unfortunately only partial explanations are offered for the editorial choices which are proposed in the available editions, and sometimes there is no explanation at all. However careful each editor may have been, how can the performer be confident that the best choices have been made out of the alternatives provided by the sources if the rationale for the choices is not provided?

1.2 Objectives of the research

This research started from the author's dissatisfaction with the available editions of Bach's Cello Suites, arising from the issues summarised in section 1.1. Questions could not be answered in a satisfactory way about the quality and accuracy of the text as presented in the available editions, compounded by a further level of uncertainty about how the text should be interpreted due to apparent gaps and unjustified assumptions in the available literature. Nothing but a fundamental and comprehensive return to the roots of the problem, i.e. to the sources themselves, could help to achieve an understanding of the text which would be sufficient to perform and teach these works.

In order to achieve the level of analytical detail needed to satisfy the objectives of the research, it was decided to select the 5th Cello Suite BWV 1011 from the set of six Cello Suites as the main subject of this study. BWV 1011 has two especially interesting features which are unique amongst the Cello Suites and provide useful information concerning Bach's intended musical text:

- a. It is given in scordatura notation in CAMB, CBerlin and CVienna, calling for the top string of the cello to be tuned down from today's normal pitch a to g. The complexity of the scordatura notation in these three sources has led to confusion amongst the copyists, but this very confusion provides important information about the original sources from which the copyists were working, and the expectations of the copyists themselves. CKellner gives this Suite for a cello in normal tuning.

¹ Markevitch, Dimitry. 2000. 93 editions are counted in Markevitch's internet article, so there are probably more than 100 now.

² Eppstein, Hans. 1990. pp.36-116.

- b. Although there is no surviving autograph copy of any of the Cello Suites in Bach's hand, a transcription of BWV 1011 by Bach survives as an autograph manuscript for another instrument (BWV 995, for the lute), which is valuable as an additional reference. The manuscript of this transcription is identified as LCJSB in this dissertation.

The Cello Suites appear as a set of six in all of the four surviving sources, so they seem to have been intended by Bach as a unified set, and most of the conclusions which can be derived from the sources concerning BWV 1011 can be expected to be valid for the whole set of Cello Suites. As the Cello Suites seem also to have been intended to be a companion volume to Bach's Violin Solos, some of the conclusions about performance practice may also be applicable to the Violin Solos.

BWV 1011 is a majestic and solemn Suite, characterized by the opening bare octave of the Prelude, and other bare octaves later in the Suite. Compared to the other Cello Suites, it contains more typical French Suite characteristics, such as the French Overture form of the Prelude and the French-style Courante and Gigue. The highest note in the whole Suite is a sounding *f* (*scord.g*'), so no especially high position work is required of the performer.

The movements of BWV 1011 occur in the following order:

Prelude (consisting of a slow opening followed by a fugue)
Allemande
Courante
Sarabande
Gavotte I
Gavotte II
Gigue

This structure is the same in the other Cello Suites, except that their Preludes do not contain any fugal sections, and the Gavottes are replaced by Menuets in BWV 1007 and BWV 1008 and by Bourrées in BWV 1009 and BWV 1010.

The fundamental questions which will be addressed in this dissertation are:

1. How are the surviving sources for BWV 1011 related to each other and to the original source(s) which may have existed in Bach's own hand?
2. Which of the surviving sources for BWV 1011 seem to provide the most reliable indications of the contents of the original source(s)?
3. How can the information provided by the surviving sources (and any related material) best be used to interpret the musical text?
4. How should this collection of differing sources for the same work be used to produce a reliable, historically- and musically-informed edition?

The common assumption that AMB's copy is the best basis for an edition lies behind question number 4 above. This is a crucial assumption, because the published editions have a fundamental influence on interpretations, so it needs to be thoroughly examined and challenged.

Comparisons of the surviving sources of Bach's Cello Suites have been made before, and their variant readings have been discussed in articles, books and critical commentaries, but the conclusions on particular aspects such as the notes, the articulation or the ornamentation are usually presented separately, without being consolidated into an overall set of conclusions. This study aims to uncover new information by means of a more comprehensive study of the surviving sources than has been conducted previously, and then to juxtapose the conclusions concerning each particular aspect in order to derive overall conclusions and provide some answers to the four questions listed above.

1.3 Method

As an initial step in the research, visits were made to the libraries in Berlin, Vienna and Brussels where most of the manuscripts discussed in this dissertation are held. The manuscripts were inspected for aspects which might have a bearing on their dates and origins such as the ink, watermarks, size of the paper, etc. The results were mostly consistent with the very comprehensive descriptions in the relevant volumes of the NBA and in Stinson (for the manuscripts by Kellner)¹, but some new observations are mentioned in chapter 2 which do not seem to appear elsewhere.

Photocopies of all of the required manuscripts were obtained from the libraries concerned, and were electronically scanned to facilitate computerised analysis. The corresponding bars from each of the sources were extracted from the scanned copies, and placed next to each other by 'copying and pasting' them into a Microsoft Word document. This process would have been laborious without the techniques of modern technology. However, only by placing the extracts closely together can all of the differences between the sources be easily seen. Some errors and omissions in earlier studies of these manuscripts were detected by means of this approach, probably because the technique used here made it easier to see all of the differences between the sources.

An example of the presentation for analysis is provided below, showing bars 164-165 of the Prelude of BWV 1011 as they appear in the relevant sources. These extracts also demonstrate some of the terminology for naming of the sources described in the Preface.

The scordatura writing in CAMB, CBerlin and CVienna means that the notes on or above the top line of the staff are all written one whole tone higher than they will sound, so a typical variant reading in the notes which is demonstrated in the extracts shown here is that the second note of bar 164 is given as *ab* (scord.*bb*) in CAMB, *bb* in CKellner, *bb* (scord.*c'*) in CBerlin, *c'* (scord.*d'*) in CVienna, and *bb* (lute *f*) in LCJSB. Also, in bar 165 there are several differences between the accidentals, and in both bars there is variant articulation. The de-

¹ Stinson, R. 1990. pp.13-55.

tails of the scordatura writing and the significant differences between the sources, including these bars, are discussed in chapters 3 to 6.

BWV 1011/995 Prelude Bars 164-165¹



In the preparation of this thesis, all variant readings in the notes, the articulation and the ornaments have been analysed and categorised into tables, from which it was possible by some simple mathematical calculations to determine the level of correlation between all of the pairs of sources, leading to conclusions about the similarities or differences which may have existed in the original sources from which the surviving copies were derived, and their relative importance. Some of the early findings were presented in papers at conferences in order to obtain feedback from other scholars².

Especially interesting variants will be described here in detail, with illustrations extracted from the sources, and the opportunity will be taken to note any information which can be de-

¹ The sources of BWV 1011 for cello are in the bass clef, with a key signature for C minor, while LCJSB has the upper stave in the tenor clef, the lower stave in the bass clef, and a key signature for G minor. In chapters 1-4, where the discussion concerns the note pitches, a copy of the clef from each manuscript will be included with every extract which is illustrated, as in the examples on this page. Similarly, extracts from the Violin Solos and LVJSB will also be preceded by key signatures from the corresponding manuscripts. LVJSB has the upper stave in the soprano clef and the lower stave in the bass clef.

² Hill, Andrew. 2006 and 2008.

rived about conventions and habits of the copyists, which could help to clarify their expectations for performance practice.

After this introductory chapter, and a description of the relevant source manuscripts in chapter 2, the main discussion will start by considering the scordatura, note pitches and rhythms, articulation and ornamentation separately. The conclusions from the separate aspects will then be assembled and compared in order to derive overall conclusions, in chapters 7 and 8.

The tables of results and details of particular issues have been grouped together for reference in the Appendix. Figures illustrating aspects of the discussion are included within the main text.

1.4 Comparison to the sources for BWV 1006

Comparisons can usefully be made between the sources for BWV 1011 and the sources for Bach's 3rd Violin Partita BWV 1006, because both works were not only composed at about the same time, but they also have a similar transmission history. Both works have been copied by AMB and Kellner, and have been transcribed in their entirety for lute by Bach (respectively into the lute suites BWV 995 and BWV 1006a in the manuscripts termed LCJSB and LVJSB in this dissertation). They are actually the only complete Suite or Partita transcriptions for lute which Bach is known to have derived from his Cello Suites or Violin Solos.

The main difference between the sets of surviving sources for BWV 1006 and BWV 1011 is that among the sources for BWV 1006 there is an autograph fair copy by Bach (within the fair copy of the complete set of Violin Solos). Thus, interesting comparisons can be made between the autograph fair copy, the other copies of BWV 1006, and the lute transcription, leading to conclusions which can be extrapolated to suggest how the surviving sources for BWV 1011 may have related to the original source(s) from which they were copied. For instance, if a particular variant reading is found consistently between VAMB and VJSB (e.g. in the articulation of a particular motif), then it may be concluded that it is a characteristic of AMB's copying (whether or not the difference was introduced consciously by AMB), and it may be expected to have recurred in CAMB when AMB copied a similar passage from the original source of the Cello Suites which she was using.

Within BWV 1006 the Gavotte en Rondeau and Menuet I are especially interesting for comparison purposes, because they are the only dance movements which occur in all of VJSB, VAMB, VKellner and LVJSB. Furthermore, the Gavotte en Rondeau is very similar in style and form to Gavotte I of BWV 1011, even having exactly the same number of bars (108) in a performance which takes all repeats into account. None of the dances in BWV 1011 resembles the style of Menuet I in BWV 1006, but nevertheless the sources for Menuet I can be used to validate some of the conclusions derived from the sources of the Gavotte en Rondeau.

2 The manuscript sources

2.1 Introduction to the sources

The cello, lute and violin manuscript sources which will be discussed in detail in this dissertation have been listed in the Preface, with the terminology used to identify each manuscript. All of these manuscripts are relevant for the purpose of gleaning as much information as possible about the relationships between the sources for Bach's Cello Suites, and their relative importance. A description of each manuscript is provided in this chapter, summarising the known information about the dating and origins of the sources, and the capabilities of the copyists. This is essential background information for the discussion which comes in the following chapters, in which the evidence about the dating and authorship of each source will be crucial for the development of the conclusions.

For completeness, it should also be mentioned that another early source of the Cello Suites which is still available is the first published edition, edited by Louis Pierre Norblin (1781-1854) for the Paris publishers Janet et Cotellet in 1824. From its similarities to the anonymous copies which are now in the libraries of Berlin and Vienna, it seems likely that this edition was based on a common source related to these two, not from any other significant independent source. As it was produced some 100 years after the Cello Suites were composed, during a period when musical tastes had changed considerably, it is not considered further in this dissertation as a reliable reference. Leisinger has commented that this first edition was substantially edited by Norblin so that it 'cannot be documented in an Urtext edition'.¹

The key signatures used in the three sources in scordatura (CMB, CBerlin and CVienna) will be discussed in section 3.1.

The descriptions of the watermarks, folios and sizes of the paper for each manuscript discussed here are very thorough in the relevant volumes of the NBA (and in Stinson for the manuscripts by Kellner²) are very thorough and will not be repeated here unless there is a special point to make. In the case of the manuscripts held in the libraries in Vienna, Berlin and Brussels, they have been confirmed by personal inspection in the early phases of the research leading to this thesis.

¹ Leisinger, Ulrich. 2000, p.13 of critical commentary.

² Stinson, R. 1990. pp.13-55.

2.2 Sources of Bach's Cello Suites

2.2.1 AMB's copy of Bach's Cello Suites

Reference

Staatsbibliothek zu Berlin – Preussischer Kulturbesitz, Musikabteilung mit Mendelssohn-Archiv, Mus. Ms. Bach P 269.

According to Eppstein, this copy passed through the hands of at least one other owner before coming into the possession first of Johann Nikolaus Forkel (1749-1818), then of Georg Poelchau (1773-1836), whose collection passed to the library of Berlin in 1841¹.

Identification of the copyist and evidence for dating the manuscript

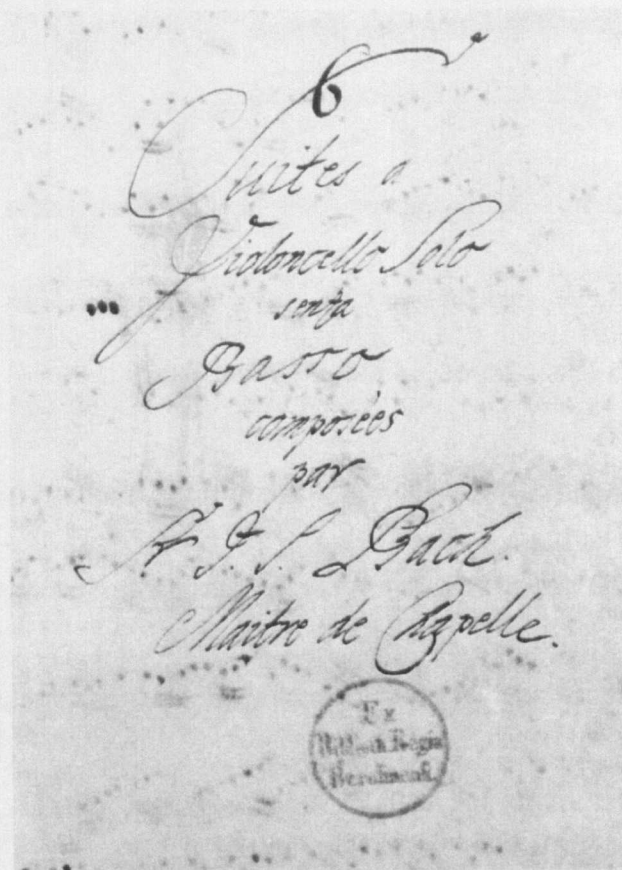
AMB was born on 22 September 1701. She sang and played the clavier, but there is no known evidence that she played a bowed stringed instrument. She worked as a professional singer at Köthen from the end of 1720 or early 1721, shortly after Bach had lost his first wife, Maria Barbara, and she married Bach in December 1721. AMB was paid about 200 Thalers per year while she was working in Köthen². Considering that her singing career was certainly limited by her family obligations, that the first violinist of the orchestra Joseph Spiess was paid about 240 Thalers per year, and that Bach himself was paid about 400 Thalers per year, it seems that AMB's musical contributions were highly valued. She is known to have copied at least 25 works by Johann Sebastian, and she also copied works by other composers³. She died in poverty 10 years after Bach, but little more is known about her except that she bore Bach numerous children.

This manuscript is neither signed nor dated, but the identification of AMB as the copyist has been established on the basis of the similarity of the handwriting to other manuscripts which she has signed. The title on the first page is illustrated below:

¹ Eppstein, Hans. 1990, p.11.

² Hübner, Maria. 2004. p.42.

³ Hübner, Maria. 2004. pp.137-139.



According to Eppstein, this title page was written by the violinist Georg Heinrich Ludwig Schwanberg (1696-1774), who was resident in Leipzig from the autumn of 1727, and for whom the copy was probably made¹. On the title page of the parallel copy by AMB of the Violin Solos (described in section 2.3.2), Schwanberg has written 'Pars 1' for the Violin Solos and 'Pars 2' for the Cello Suites, indicating that he considered them to be companion works, forming two parts of a single volume.

The text of this title page is exactly the same as the title of 'Pars 2' in AMB's copy of the Violin Solos, and in an almost identical handwriting, except that here the text '6 | Suites a' has been added at the start in the copy for cello, and in the Violin Solos the text 'et | Directeur de la Musique | a | Leipzig' has been added at the end of the title. Although the 'S' of 'Suites' is rather different from the same letter in 'Solo' in this title, it is almost identical to the 'S' which appears twice on the title page of the Violin Solos and there can be little doubt that they were written by the same person.

It is striking that the Italian words 'Violoncello Solo senza Basso' have crept into a text which is otherwise in French. However, the same mixture of languages appears in some of the other sources, so it was probably simply a convention in Bach's circle. It is also possible that

¹ Eppstein, Hans. 1990. p.11.

this mixture of languages was partly intended to mirror the mixed Italian-French styles of the music, as suggested by Ledbetter¹.

Another peculiarity of the title page is the figure '6' at the top of the page. This appears to be in a different handwriting and may have been added at a later date, using a different pen, and suggests that it may not have been known when the title page was produced that there would eventually be six suites in the set.

Apart from the title page, the written text (i.e. titles of the Suites and movements) in the remainder of this manuscript seems to be entirely in the style of AMB's handwriting. This is unlike AMB's copy of the Violin Solos, where some of the titles are in Schwanberg's hand. The similarity (which may have been intentional) between AMB's handwriting and that of her husband has caused some confusion about the authorship of several manuscripts, including this one², but in this case the errors in the musical text are too numerous for it to have been written by Bach himself. Each suite has the title 'Suite', although the title page by Schwanberg only has one 't' in the word 'Suites'. A notable characteristic is that crotchets, quavers and semiquavers having a descending stem are mostly written so that the stem joins the middle of the round head, while descending stems for minims are always to the right of the note. The modern convention is of course to place descending stems to the left of the note. Ascending stems on all notes are always placed by AMB to the right of the note, as in the modern convention.

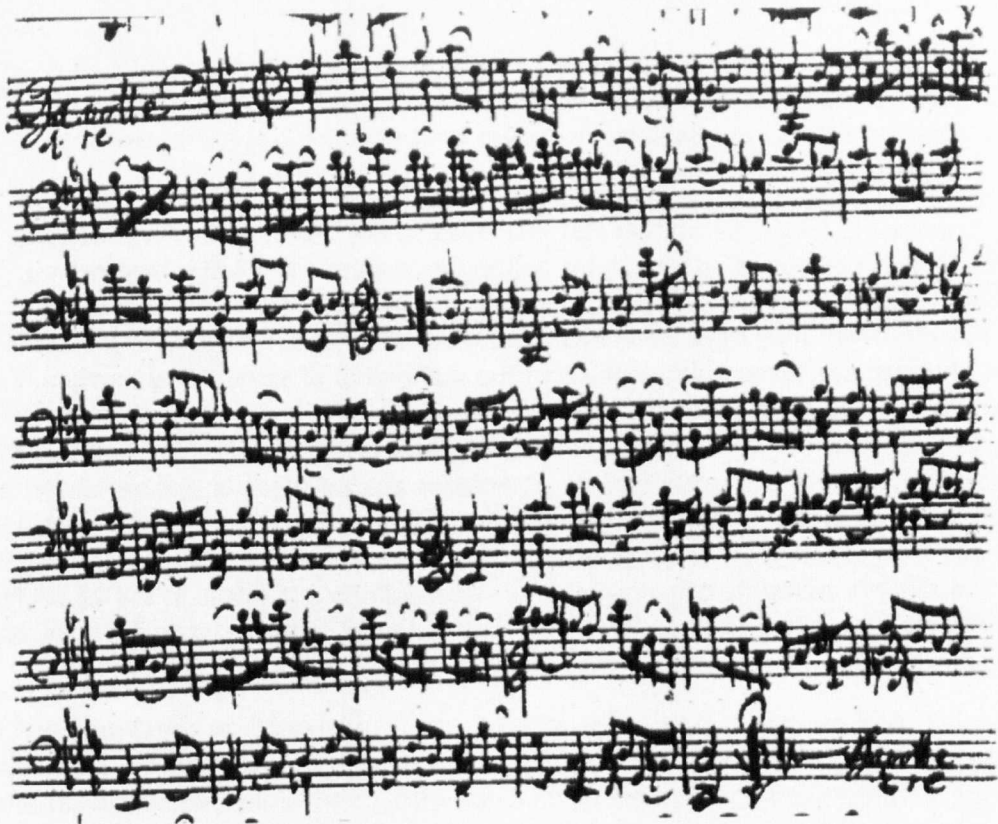
Furthermore, AMB always seems to have written the numerical time signatures quite large, exceeding the height of the stave, but the letter C for common time is usually about the same height as the stave. The bass clef is drawn as a small curved line which usually occupies only the top three or four lines of the stave. At the end of each movement in this manuscript, there is a characteristic rounded pause mark above the final double bar and an inverted pointed pause mark underneath, and the double bar is sometimes followed by a short curly ornament.

The following extract exhibits many of these characteristics:

¹ Ledbetter, David. 2009. p.3.

² Discussed in Jarvis, Martin. 2002.

BWV 1011, Gavotte I from CAMB



The watermark in the paper is the same as the watermark of the paper used for AMB's copy of the Violin Solos and for the autograph copy of BWV 995. Eppstein suggests on the basis of the watermark that this paper was used by AMB and Bach in the period 1727-1731 while they were living in Leipzig, and it seems that no other scholar has been able to date this copy more precisely¹.

This manuscript is easily legible, but contains a fairly high number of copying errors, many of which are rather obvious and can be corrected by reference to the other sources.

¹ Eppstein, Hans. 1990. p.12.

2.2.2 Kellner's copy of Bach's Cello Suites

Reference

Staatsbibliothek zu Berlin – Preussischer Kulturbesitz, Musikabteilung mit Mendelssohn-Archiv, Mus. Ms. Bach P 804, pp.249-276. The manuscript has been trimmed to 32 x 20 cm with the loss of some of the movement names, and possibly some articulation marks, at the top of certain pages.

The contents of the whole volume are listed by Hausswald and Gerber¹. The volume mostly contains works by J.S.Bach copied by Kellner, but there are also a few works by other composers. On the front page of the volume is the annotation '*Sammelband aus Joh. Pet. Kellner's | Besitz, bisher bei F.A.Roitzsch*'.

Stinson suggests that, after Kellner's death, this manuscript (and Kellner's copy of the Violin Solos) may have been passed to Johann Andreas Kellner (1724-1785, possibly a brother of Johann Peter), and from there to Johann Christophe Kellner (1736-1803, son of Johann Peter) in Kassel, before being integrated into the P 804 volume².

This manuscript contains complete copies of all of the Cello Suites except BWV 1011, in which the whole Sarabande is missing and only the first nine bars of the Gigue have been included. There is no sign that these missing sections were ever part of the manuscript, nor that any pages have been lost, so it seems that Kellner either omitted to copy them, or they were not present in the original source which he was copying.

Identification of the copyist and evidence for dating the manuscript

Kellner was a professional organist, composer and pedagogue who copied many of Bach's works. He was born in Gräfenroda, a village near Arnstadt, lived most of his life there, and eventually became the village's cantor.

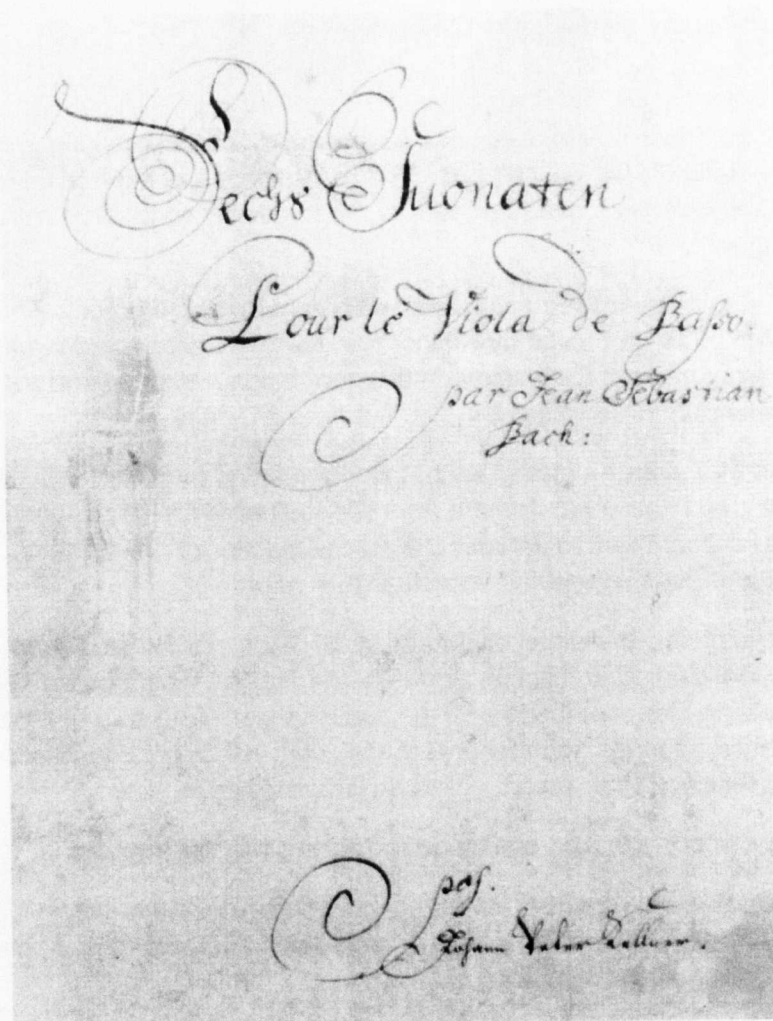
Kellner is variously described as a 'friend' or 'student' of Bach (not mutually exclusive terms in any case!), but seems not to have met Bach until at least 1727, and more likely 1729³. 46 of Kellner's copies of Bach's music have survived, and it is thought that he also made other copies which have unfortunately been lost.

The copy is signed but not dated. The front page is illustrated below:

¹ Hausswald, Günter and Gerber, Rudolf. 1958. pp.16-19.

² Stinson, Russell. 1990. p.46.

³ Stinson, Russell. 1990. p.17.



The handwriting is similar throughout the manuscript. The signature indicates 'pos.' (presumably indicating a derivative of the French word 'posséder') not 'Scrip.' as in Kellner's copy of the Violin Solos (described in section 2.3.3). This might be thought to indicate that Kellner only 'possessed' the Cello copy and did not actually write it. However, all scholars seem to agree that the handwriting is Kellner's both on the title page and in the musical text, and his authorship is not a matter of doubt.

Kellner has mixed German, Italian and French terms on the title page, and he describes the works as 'Sonaten', not 'Suites', although in the early 18th century these terms may not have been clearly differentiated. The layout of the text on the title page of this manuscript suggests that Kellner did not add the word 'Sechs' as an afterthought, as has been seen in AMB's copy with the added number '6'. It may be quite significant, however, that Kellner has written '*Pour le Viola de Basso*' on the title page. Surely such an eminent musician as Kellner must have known the difference between a 'viola de basso' and a violoncello, so his copy may indeed not have been intended for the cello. This will be discussed in more detail in section 4.4.

The outer bifolio has a different watermark from the other six bifolios. According to Stinson, the outer bifolio dates from 1727 or later, while the other six bifolios date from early 1726¹. One possible explanation for the use of two types of paper might be that the whole manuscript was produced in 1727 or later, using a mixture of paper that happened to be available. However, Eppstein suggests that the whole manuscript was written in 1726 (based on the dating of Kellner's copy of the Violin Solos, which is thought to be contemporary), and that the original outer bifolio was somehow damaged and had to be re-written a little later on newer paper². In any case, the manuscript seems to date from 1726 or later.

As in AMB's copy, each individual suite in Kellner's copy has the title 'Suite'. Notable characteristics of the handwriting are the figures in the time signatures, and the way of writing the bass clef, which resembles a letter S on its side followed by dots above and below the f line of the staff. The bass clef is only written at the beginning of each movement, not on every system. The note stems are always to the right of the notes, whether ascending or descending, and in several places Kellner has also added a sixth line to the top of the staff. At the end of each movement, the final double bar has a rounded pause mark above and below, but it has generally been unclearly drawn.

The following extract, showing the last line of the Allemande of the 5th Suite and the first line of the Courante, illustrates most of the characteristics of the handwriting mentioned above.



Kellner is not thought to have been a string player, so there is some debate about why he made this copy. Most authors speculate that it was either to use it as a reference for his own compositions, or to transcribe it for keyboard, although there does not seem to be any direct evidence that he actually did either of these things.

This copy contains some significant differences compared to the other copies. It has suffered from quite heavy criticism in the literature, where the differences are mostly regarded as copying errors (for instance, Beisswenger describes Kellner's copy as 'the most unreli-

¹ Stinson, Russell. 1990. pp.23-25.

² Eppstein, Hans. 1990. p.14.

able transmission carrier of the cello suites'¹), with the consequence that this copy has only been used by editors as a reference where an issue in the other sources has to be resolved.

2.2.3 The Berlin copy of Bach's Cello Suites

Reference

Staatsbibliothek zu Berlin – Preussischer Kulturbesitz, Musikabteilung mit Mendelssohn-Archiv, Mus. Ms. Bach P 289, pp. 71-114. Most of the contents of the volume are copies of works by J.S.Bach, but there are also works by other composers.

Eppstein mentions that on page 46 of the catalogue concerning an estate in the name of 'Westphal' dated 1830, there is an entry 'Bach, J.S., 6 Suites p. Violoncello solo. Geschr.', and it is generally agreed that this estate refers to Johann Christoph Westphal (1773-1828) who inherited the manuscript from his father of the same name (1727-1799), a music editor and seller in Hamburg². The younger Johann Christoph was an acquaintance of C.P.E.Bach and was the owner of a collection of Bach manuscripts which was later bought by F.J.Fétis (1784-1871) for the Brussels Libraries, and the date of Johann Christoph's death seems to match the date of publication of the estate catalogue in 1830.

After Westphal, the manuscript apparently passed to the von Voss-Buch family, before being acquired by the Prussian 'Kulturbesitz' in the mid-19th Century.

Identification of the copyists and evidence for dating the manuscript

The manuscript is neither signed nor dated, and has been written by two different copyists, the handwriting of the first copyist ending in bar 12 of Bourrée I in the 3rd Cello Suite BWV 1009, where the second copyist has taken over.

The first copyist has been designated 'Anonymous 402', a scribe who was active in the circle of Johann Philipp Kirnberger (1721-83) in Berlin³. The same scribe is also thought to have produced a copy of the Violin Solos, which is now in a private collection in America and may once have belonged to C.P.E.Bach⁴.

The second copyist has not been identified, and there is some dispute about his or her likely origin. Leisinger suggests that the handwriting and key signatures indicate a copyist from Hamburg rather than Berlin, although Leisinger provides no concrete examples to support this theory⁵. Leisinger concludes that the two copyists were working from the same original

¹ Beisswenger, Kirsten. 2000. (edition). p.77.

² Eppstein, Hans. 1990 p.15.

³ Eppstein, Hans. 1990. p.15.

⁴ Leisinger, Ulrich and Wollny, Peter. 1997. p.76.

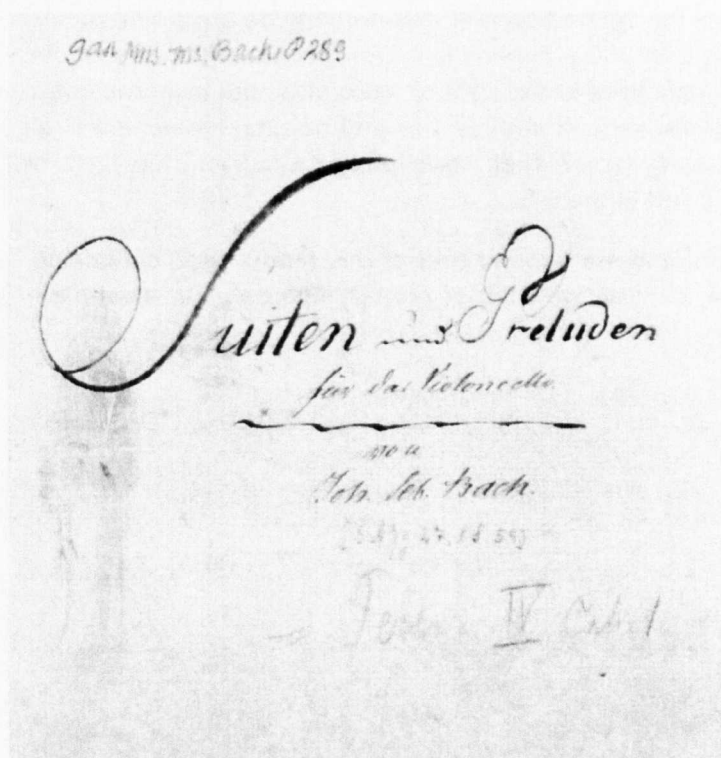
⁵ Leisinger, Ulrich. 2000. critical commentary pp.4-5.

source, but suggests that they did not work in collaboration and that there may have been an interruption in the work at the point of handover between them. Based on his suggestions of the cities where the copyists may have worked, and the commonality with the cities where C.P.E.Bach lived, Leisinger suggests further that this manuscript may well have been copied from an original source which was mentioned in C.P.E.Bach's estate as '6 *geschriebene Suiten fürs Violoncell ohne Bass. Eingebunden*'.

Beisswenger has challenged Leisinger's theory that the second copyist was working in Hamburg, on the grounds that the style of the bass clef in the copy could have originated from many geographical areas and is not specific to Hamburg (it is indeed similar to the bass clef written by AMB, as noted above), and that the tenor clef (only used in the 6th Suite) is more typical of Berlin, but she provides only limited supporting evidence¹.

The issue of whether or not the second copyist was working in Hamburg is thus still unclear, although it is important because confirmation of this point might suggest that he or she was working from the same original source as the copyist of the Vienna Copy of Bach's Cello Suites discussed below.

The title page of the Berlin copy of Bach's Cello Suites is illustrated below:



¹ Beisswenger, Kirsten. 2000. *Concerto*. p.158.

There is no indication on the title page that there are six Suites in the set, the title is only in German, and this is the only source in which the text of the title explicitly mentions the Preludes, implying either that they are somehow separate from the Suites, or perhaps emphasising that these Suites all have Preludes (which is indeed a little unusual).

Some scholars suggest that the first part of the manuscript was produced quite early in the second half of the 18th century, while the second part may be from considerably later in the same century, but there seems to be no substantial evidence for either date apart from the suggested association of the first copyist to the circle of Kirnberger.

According to Eppstein, the text '*für das Violoncello | von | Joh. Seb. Bach*' was added at a later date by Siegfried Wilhelm Dehn¹. On the basis of the watermarks, the paper of the whole manuscript appears to have had the same origin, even though two copyists are concerned.

The exact handover point between the copyists is rather unclear. Their handwriting is only slightly different, and they seem to have used pens and ink which produced the same thickness and colour of lines – one might even think that they used the same pen. This may be significant evidence against the view that the two parts were produced at different times and places. Throughout the manuscript the text is clear, with the stems of the notes leaning slightly backwards. The main differences in the music notation between the two copyists are that, in the writing of the second copyist, the note heads are a little rounder, the note stems a little longer and the tails of the minims (whether ascending or descending) pass through the middle of the note instead of to the right or left of the note as in the notation of the first copyist. In the script of the second copyist, the end of each movement is also more decorated, the slurs are very curly (sometimes completely round) and the bass clef sometimes ends with a little upwards curl to the left.

For this dissertation, it is the second part of this manuscript, containing the 5th Suite in the hand of the second copyist, which is of primary interest. An example of the handwriting is shown here:

¹ Eppstein, Hans. 1990. p.15.



For notes of a crotchet value or less, the stems are written to the right of the note when ascending and to the left when descending, and they are generally rather long and leaning slightly backwards. The numbers in the time signature are written large, in a form similar to that of Kellner, and the bass clef is mostly written as a small curved line which only occupies the top three lines of the staff, similar to that of AMB. At the end of each movement there is a rounded pause sign above and below the final double bar, followed by a long curly ornament, as shown in the example above.

This copy is the neatest of the four surviving manuscripts of the Cello Suites, with clear slurs and comparatively few errors. It is similar to the Vienna copy, with the same layout of the movements.

An important question is whether it was copied from an original autograph by Bach or whether it was copied from an intermediate copy that had been written by someone else. If it was copied from an autograph, then it might be showing the result of a revision by Bach compared to the earlier source(s) used by AMB and Kellner. If it is a copy of a copy, then it may only be reflecting the tastes of one or more of the copyists involved, and not Bach's intentions. This question is not yet resolved and there is some dispute between scholars on the issue.

2.2.4 The Vienna copy of Bach's Cello Suites

Reference

Österreichische Nationalbibliothek in Vienna, Mus. Hs. 5007.

It may be significant that Baron van Swieten (1734 - 1803) is known to have brought a number of important Bach manuscripts to Vienna, possibly including this copy of the Cello Suites, when he returned there from Berlin in 1777 (he had been Austrian envoy to the court of Frederick the Great in Berlin from 1770-1777)¹. In any case, a copy of the Cello Suites is listed in a catalogue of manuscripts owned by the publisher Johann Traeg (1747 – 1805) in Vienna in 1804². Nothing is known about any previous owners.

Despite the above-mentioned record, the earliest mention of this manuscript in 20th century literature appears to be by Smith³, but even he apparently did not see the manuscript, and it was fully described for the first time by Eppstein⁴.

¹ Tomita, Yo. 2000. pp.364-391.

² Discussed by Leisinger, Ulrich. 2000. p.6.

³ Smith, Mark. 1983. p.69.

⁴ Eppstein, Hans. 1990. p.16.

Identification of the copyist and evidence for dating the manuscript

The manuscript is neither dated nor signed. The front page is illustrated below:



The title is in a mixture of French and Italian, and the word 'Suite' is given in the singular. The figure '6' seems to be in the same handwriting, but may have been added later, so it is possible that it was initially not known how many suites would be in the set.

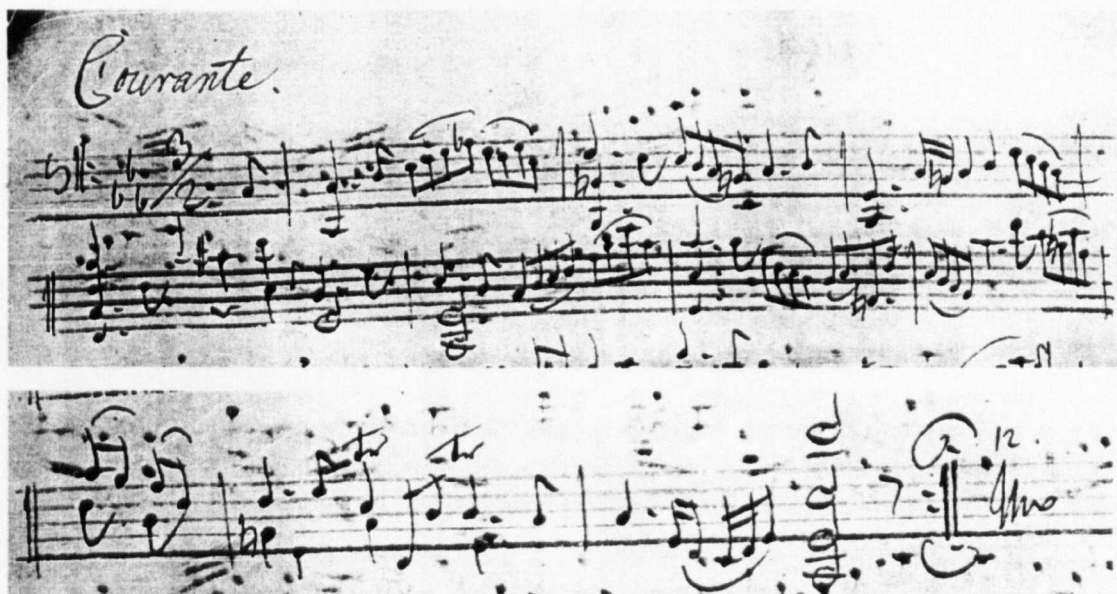
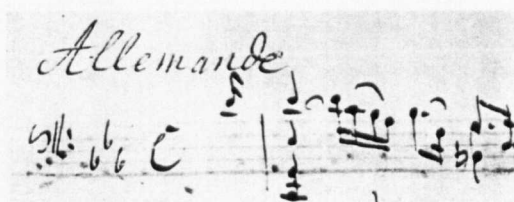
According to Eppstein, this paper was produced in the Netherlands and was widely used in North and Central Germany, but rarely in Austria, and the handwriting is also typical of North or Central Germany. The paper is relatively thin, so that the notes of each page are visible through the paper on the other side of the page, and the staff is drawn in thinner ink than the music itself. The copy has been written with care and contains few errors.

The bass clef is drawn as a small horizontal S followed by two small vertical lines and dots above and below the f line of the staff, but only on the first system of each movement. The two vertical lines and dots are present whether or not the movement includes a repeat. A few of the note stems come from the middle of the notes, but generally the descending stems are to the right of the notes, and the ascending stems are to the left. At the end of each movement, there is a rounded pause sign above and below the double bar, and after

the double bar there is a short curly ornament, similar to that which occasionally appears in AMB's copy. Also at the end of each movement, the number of bars is given in what appears to be the same handwriting as the music itself. In binary form movements the quantity of bars is given for each half. There is also a number at the end of each movement, apparently in a different hand, which rises incrementally and may have been inserted in preparation for a printed edition.

On the basis of the paper, the handwriting and the record of its possible possession by Johann Traeg in 1804 mentioned above, it is generally accepted that this manuscript was written in the late 18th Century.

The following examples of the opening of the Allemande and of the first two lines and last line of the Courante illustrate most of the characteristics of the handwriting:



There are very few suggestions in the literature to identify the copyist of this manuscript. However, by comparison to manuscript copies of two string parts for the keyboard concerto Wq 9 by C.P.E.Bach (Library of the Royal Conservatory of Brussels, 5887 MSM), Leisinger suggests that the same copyist produced the Vienna copy of the Cello Suites¹. According to

¹ Leisinger, Ulrich. 2000. Critical commentary pp.4-5.

Leisinger and Wollny, the Wq 9 parts came from the collection of J.C. Westphal, who was also mentioned above as a likely owner of the Berlin copy of the Cello Suites¹. On the front page of Wq 9 is the note 'No. 16 de Westphal'.

The link which Leisinger makes to the copyist of Wq 9, and the further link which he deduces to C.P.E. Bach, is important for his argument that the Vienna copy was probably copied from an autograph copy of the Cello Suites owned by C.P.E. Bach.

An extract of the cello part from Wq 9 to which Leisinger refers is reproduced here, showing the opening and ending of the first movement, followed by the opening of the Adagio:



¹ Leisinger, Ulrich and Wollny, Peter. 1997.

Similarities between the handwriting in the cello part in Wq9 (shown above) and the Vienna copy of the Cello Suites are:

The bass clef.

The form of the 'C' time signature.

The general shape of the notes and placing of the stems.

The small bar on the semiquavers when attached to a preceding dotted quaver.

The thin ink used for the staves.

The letters 'A' and 'd' in the movement names and the letter 'V' for Violoncello in the titles.

However, there also significant differences:

The letter 'C' in the movement names.

In Wq 9, the bass clef and key signature are given on each line, whereas in the Vienna copy they are generally only given for the first line of each movement.

In Wq 9 the note stems lean slightly to the right, while in the Vienna copy they lean slightly to the left.

The decoration of the double bar at the end of the movement.

The differences suggest that Leisinger's 'identification' of the copyist is not completely convincing. Perhaps it would be safer to conclude that the similarities in the handwriting indicate that the copyists were trained in the same part of Germany and at around the same period in the 18th Century, without going so far as to say that they are the same person. However, this does not invalidate Leisinger's suggestion that this manuscript may have been copied from an original source owned by C.P.E.Bach.

This manuscript is neatly written, with clear slurs and comparatively few errors. It is in many ways similar to the Berlin copy, with a similar layout of the movements. However, there are some differences in the notes which suggest that it was not copied directly from the Berlin copy, or vice versa.

2.3 Sources of Bach's Violin Solos

2.3.1 The autograph copy

Reference

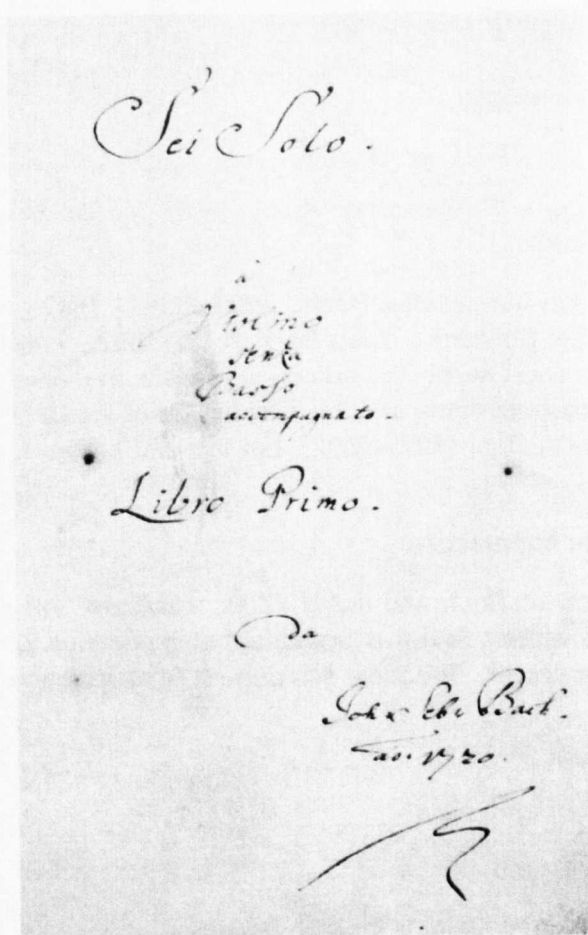
Staatsbibliothek zu Berlin – Preussischer Kulturbesitz, Musikabteilung mit Mendelssohn-Archiv, Mus. ms. Bach P 967.

On the flyleaf there is the text 'Louisa Bach | Bückebug | 1842', which is a reference to J.S.Bach's granddaughter Christina Louisa Bach (1762-1852), whose father Johann Christoph Friedrich Bach was court musician and concertmeister in Bückebug from 1749 until his death in 1795. The manuscript came into the possession of the Berlin Royal Library in 1917 from the estate of Wilhelm Rust (1822-1892), but it is not known for certain how Rust obtained it¹.

Evidence for dating the manuscript

The manuscript is signed by Bach and dated 1720. However, this is presumably the date when this fair copy was written, and it is possible that a previous working copy might have been written some years earlier. The main title page is illustrated below:

¹ Hausswald, Günter and Gerber, Rudolf. 1974, p.25



The title is entirely in Italian, but a curious aspect is the text 'Sei Solo', where one would normally expect 'Sei Soli'. It is strange that Bach should make such an elementary error in his Italian. Furthermore, the word 'Solo' is centrally placed, and the word 'Sei' is towards the left of the page, suggesting that 'Sei' has been added at a later date (but in the same handwriting) when it was certain that there would be six works in the set, and Bach preferred not to change 'Solo' into 'Soli'.

The text 'Libro Primo' in the title implies that there was at least one further set in the same original volume, and this is generally thought to have been the set of Cello Suites (this is discussed further in the sub-section concerning the copy of the Violin Solos by AMB, section 2.3.2).

A characteristic of the handwriting at the end of each movement is a rounded pause mark above and an inverted pointed pause mark below the double bar.

This is a very neatly written manuscript which has remarkably precise articulation marks, and seems therefore to be a fair copy. For violinists, it is of course of fundamental importance. As it is so neatly written and appears to be a genuine autograph, there are fewer doubts about Bach's intentions for the Violin Solos than for the Cello Suites. Ruth Tatlow has suggested that the manuscript was slightly manipulated by Bach to ensure that the number of

bars in certain movements satisfied some particular proportions, e.g. that for this reason the Preludio of the E major Partita is one bar shorter than would be expected on purely musical grounds¹.

2.3.2 AMB's copy of Bach's Violin Solos

Reference

Staatsbibliothek zu Berlin – Preussischer Kulturbesitz, Musikabteilung mit Mendelssohn-Archiv, Mus. ms. Bach P 268.

The manuscript was probably obtained in 1841 by the Berlin Library from the legacy of Georg Pöchlau (1773-1836).

Identification of the copyist and evidence for dating the manuscript

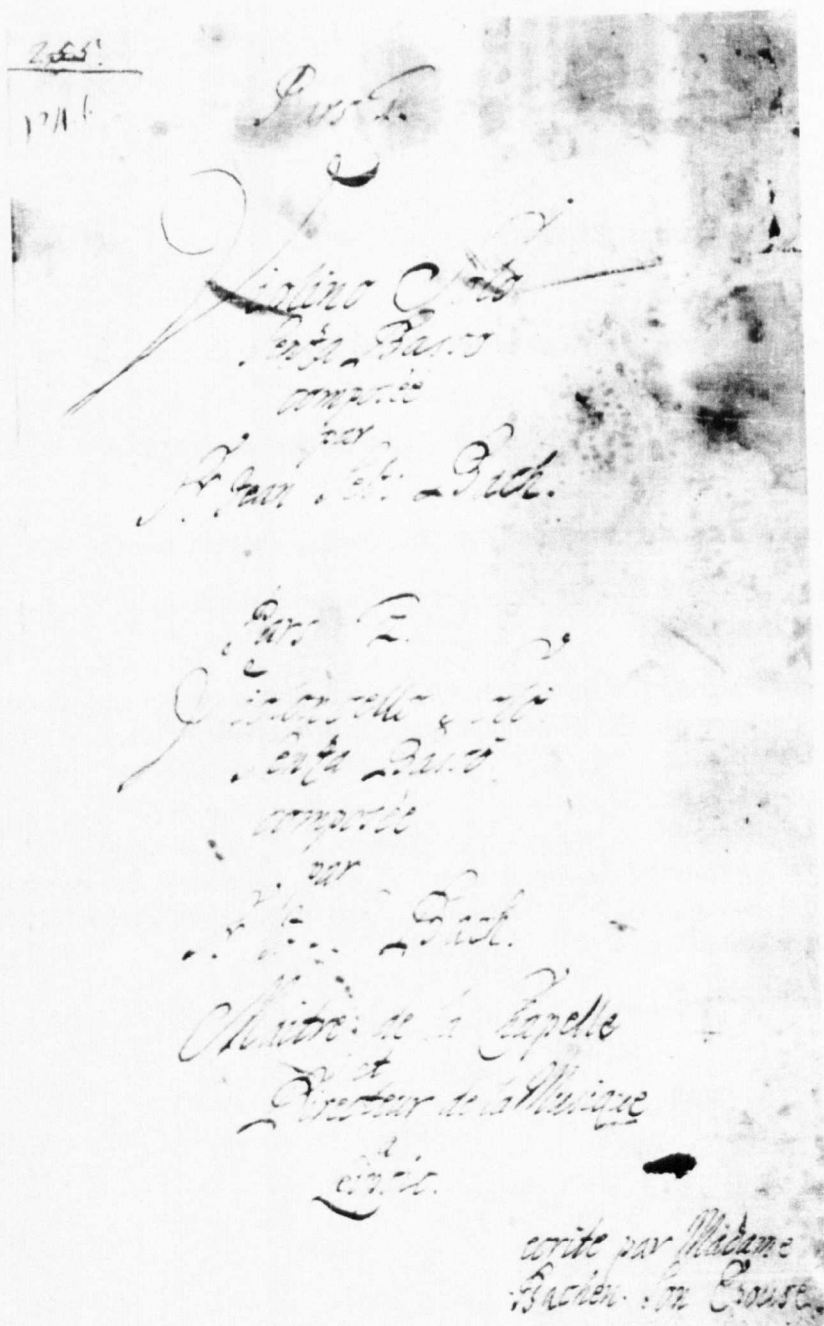
A brief summary of AMB's life has already been given in section 2.2.1 in the context of her copy of Bach's Cello Suites.

The copy is neither signed nor dated, but AMB is mentioned as the copyist on the title page in handwriting ascribed to the Brunswick-Wolfenbüttel chamber musician Georg Heinrich Ludwig Schwanberg (1696-1774), who was resident in Leipzig from the autumn of 1727, and for whom the copy was probably made². The titles of several of the Sonatas, Partitas and individual movements (e.g. the title of the Gavotte en Rondeau of the 3rd Partita) seem to be in Schwanberg's handwriting. Other text in this manuscript is in the more sober style of AMB's handwriting, suggesting that there was a close cooperation between Schwanberg and AMB in the production process.

The title page is illustrated below:

¹ Tatlow, Ruth. 2007.

² Eppstein, Hans. 1990. p.11.



The text of the title is in a mixture of French and Italian, as in AMB's copy of the Cello Suites. An important feature is that, unlike the autograph copy of the Violin Solos, this title page mentions not only 'Pars 1' but also 'Pars 2 | Violoncello Solo ...', linking the violin and cello works together and presumably derived from the 'Libro Primo' of the violin autograph and a possible 'Libro Secundo'. For both parts, the title is in the singular, without any mention that there are six works in each set. The title given for 'Pars 2' is exactly the same as the title given to AMB's copy of the Cello Suites, in the same handwriting, except that in the latter it is preceded by '6 Suites a' and omits the text 'et | Directeur de la Musique | a | Leipzig'. AMB's

copy of the Cello Suites also has its own title page (described in section 2.2.1 above), but her copy of the Violin Solos has only this title page, mentioning both the violin and cello works. It seems likely from this that the Violin Solos and Cello Suites were originally part of the same volume produced by AMB, but the two parts were separated at some stage.

The watermark is the same as that of AMB's copy of Bach's Cello Suites and Bach's autograph of BWV 995, dating the manuscript to the period 1727-1731. The handwriting of the musical text (not the titles added by Schwanberg) shows the same characteristics as those noted in AMB's copy of Bach's Cello Suites.

2.3.3 Kellner's copy of Bach's Violin Solos

Reference

Staatsbibliothek zu Berlin – Preussischer Kulturbesitz, Musikabteilung mit Mendelssohn-Archiv, Mus. ms. Bach P 804, pp.121-146. The paper has been trimmed, causing the loss of some of the movement names and possibly some articulation marks at the top of certain pages (as with Kellner's copy of Bach's Cello Suites).

The contents of the whole volume are listed by Hausswald and Gerber and consist mostly of works by Bach copied by Kellner, but there are also a few works by other composers¹.

This manuscript was presented to the Berlin Library in 1889 by Max Abraham of Leipzig. It is thought to have been copied from an early working version of the Violin Solos because it contains variants of some movements which do not appear in the autograph or the other copies. Furthermore, there are only five works in the set, all explicitly mentioned on the title page. Significant omissions compared to the autograph are:

The whole of the B minor Partita.

The Allemande and Courante of the D minor Partita.

The Loure, Menuett II, Bourrée and Gigue of the E major Partita

There are also some missing bars in certain movements. Stinson discusses this manuscript in some detail, and suggests that some of the omissions may have been deliberate because they were simply unsuitable for keyboard transcription, but he also points out that in some passages there is extra material added in Kellner's copy, which Kellner himself is unlikely to have invented². He comes to the conclusion that this copy was probably produced from an early working copy of the Violin Solos containing at least some of the omissions, shorter versions of movements and additions that can be seen in Kellner's copy.

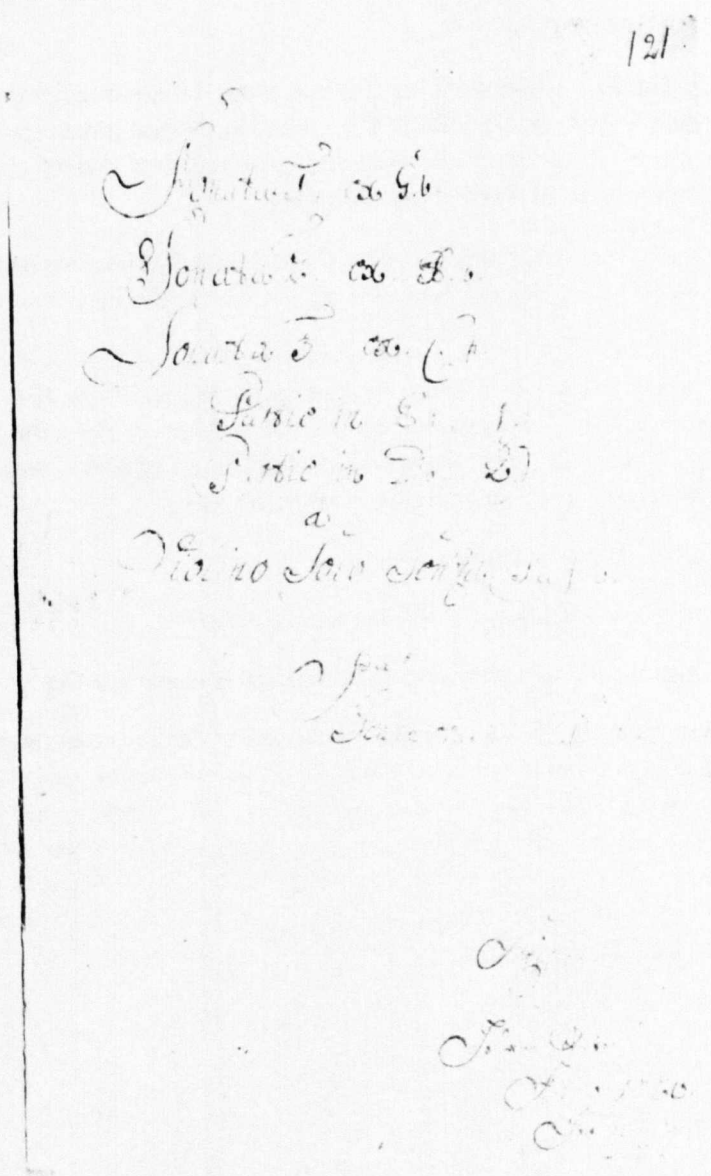
¹ Hausswald, Günter and Gerber, Rudolf. 1958. pp.16-19.

² Stinson, Russell. 1990. pp.55-70.

Identification of the copyist and evidence for dating the manuscript

A brief summary of Kellner's life has already been given in section 2.2.2.

The manuscript is signed, and is dated 1726 on both the title page and the last page. As with Kellner's copy of the Cello Suites, the handwriting appears to be similar throughout the manuscript. However, unlike Kellner's copy of the Cello Suites, the title page of this copy indicates 'Scrip. Johann Peter Kellner', indicating that the copy was made by Kellner himself. The front page is shown in the next example (unfortunately a more legible copy could not be made, but the date occurs below the signature in the text 'Anno 1726 | Frankenhayn'). The manuscript also ends with the text 'Frankenhayn. D. 3. Juli | 1726'. The presence of the two dates does not necessarily mean that the copy was actually produced in 1726, as it may have been produced earlier.



The watermark is the same as in the six middle bifolios of Kellner's copy of Bach's Cello Suites¹. The handwriting shows the same characteristics as have already been noted in Kellner's copy of Bach's Cello Suites, classified by Stinson as 'phase 1, late', and suggesting that both sets were produced at about the same time².

This manuscript seems to have been largely disregarded by most editors. For instance, Hausswald and Wollny describe it as 'irrelevant for the purposes of a modern scholarly edition'³. However, if it represents Bach's early vision of the Violin Solos, it is surely of some importance, at least as a demonstration of Bach's compositional development.

2.4 Sources of Bach's lute suites related to BWV 1006 and BWV 1011

2.4.1 Introduction

Suites BWV 995 and BWV 1006a are transcriptions for lute of BWV 1011 and BWV 1006 respectively, and their manuscript sources offer useful comparison material which is relevant to a discussion of the other sources for BWV 1011 and BWV 1006. For BWV 995, the important sources are the autograph manuscript, which is in staff notation, and a copy which is in lute tablature notation. For BWV 1006a, the main source is the autograph copy, which is in staff notation.

¹ Stinson, Russell. 1990. p.27.

² Stinson, Russell. 1990. p.23.

³ Hausswald, Günter and Wollny, Peter. 2001. p.XI.

2.4.2 The autograph copy of BWV 995

Reference

Bibliothèque Royale of Brussels, Ms. II. 4085 Mus. (Fétis-Catalogue Nr.2910).

Spiessens gives the bare facts about the known history of this manuscript¹:

The manuscript was probably bought by Fétis in 1836 in an auction from the old foundation of Breitkopf and Härtel in Leipzig. This company had already offered three manuscripts of lute suites by Bach for sale in 1761, and it was probably the same music which it auctioned in 1836.....It escaped the attention of the Bach-Gesellschaft which produced the Gesamtausgabe from 1851 to 1899. Antonio Tirabassi ... was the first to re-discover the manuscript, and published a version for harpsichord in 1912. A comparison with handwriting of the Bach manuscripts in part 44 of the old Gesamtausgabe, pages 13-16, brought Tirabassi and his co-worker Eugene Bacha to the conclusion that the Brussels manuscript dated from 1720-22, when Bach was in Köthen.

The Bibliothèque Royale of Brussels acquired the manuscript from Fétis in 1907, along with other items from his collection.

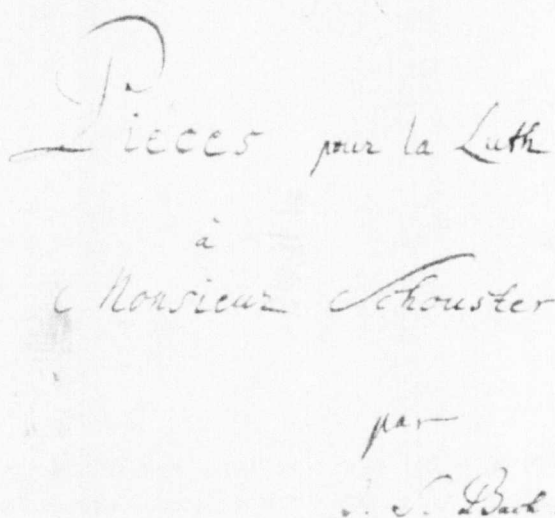
Evidence for dating the manuscript

This manuscript is in staff notation and has been transcribed either from a copy of BWV 1011, or from some other (lost) early version of the same Suite (the possible origins of the Suite will be discussed in chapter 7). It has been transposed into G minor, with harmonic and polyphonic additions to suit the character and technique of the lute.

The manuscript is signed by Bach, but not dated. It has been messily written, being almost illegible in some places and suggesting that the transcription was made in some haste, so it is not a 'fair' copy but more likely the 'transcribing' copy.

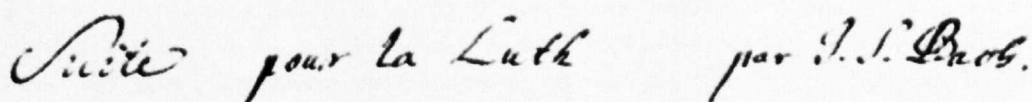
The title page is illustrated below:

¹ My translation from Spiessens, Godelieve. 1981. Original text: *Vermoedelijk werd het handschrift door Fétis in 1836 gekocht op een veiling uit het oude fonds van het huis Breitkopf & Härtel te Leipzig. Reeds in 1761 had deze firma drie geschreven luitsuites van Bach te koop aangeboden en wellicht was het dezelfde muziek die zij in 1836 veilde.... Het autograaf van de Koninklijke Bibliotheek ontsnapte aan de aandacht van het Bach-Gesellschaft dat van 1851 tot 1899 de eerste Gesamtausgabe bezorgde. Antonio Tirabassi....was de eertse die het Bachautograaf herondekte en in 1912 uitgaf in een versie voor klavecimbel. Een vergelijking met de chronologisch gerangschikte voorbeelden van Bachhandschriften in deel 44 vean de oude Desamtausgabe, Blatt 13-16, bracht Tirabassi en zijn medewerker Eugène Bacha ertoe het Brussels autograaf in de Köthener jaren 1720-1722 te situeren.*



Pièces pour la Luth
à
Monsieur Schuster
par
J.S. Bach.

Inside the manuscript, the first page of the music has the additional title:



Suite pour la Luth par J.S. Bach.

As the title page has the word '*Pièces*' in the plural, while on the first page of the music itself the title is '*Suite*', the volume may initially have contained more pieces than just BWV 995. The text '*pour la Luth*' on both pages and the text '*par J.S. Bach*' on the first page of the music seem to have been added as an afterthought, in a different (unknown) handwriting.

The use of the feminine '*la Luth*' in both titles is a small curiosity. In correct French, the lute is masculine and should be written as '*le Luth*'. It seems likely that this was a simple grammatical error by Bach, arising from the fact that in German the lute is given the feminine gender ('*die Laute*'), so it might have been natural for him to preserve the same gender in the French title. According to Grossman, this was not an uncommon error, for instance also occurring in the copy which Kellner made of the lute suite BWV 999, '*Praelude in C moll pour la Lute...*'¹. In the tablature copy of BWV 995 (described below), the title uses the masculine form '*le Lut*' [sic].

The following extract from the Allemande shows the arrangement of the staves:

¹ Grossman, Robert. 1987. p.33.



The upper staff is written in the tenor clef and the lower staff in bass clef. It is possible that Bach chose to use the tenor clef for the upper staff because it simplified his task of transcribing up a fifth from the C minor cello version in the bass clef – the notes stay in the same places on the staff, and it is only necessary to adjust a few accidentals.

The watermark is the same as in the paper used by AMB for her copies of the Cello Suites and Violin Solos, dating the manuscript to 1727-1731.

In order to date the transcription more accurately, both Hulshoff and Spiessens suggest that the dedicatee was Joseph Schuster (1722-1784), a member of the Dresden Capelle who functioned as chamber musician and bass singer¹. This would imply that the manuscript was produced near the end of Bach's life (for Mr. Schuster to have been old enough to be the dedicatee), but that seems to be incompatible with the watermark dating of 1727-1731. Eichberg and Kohlhasse suggest that the dedication was written long after the transcription itself, when Joseph Schuster was in Dresden (from 1741)², but a more likely suggestion has been made by Siblin, who provides evidence that Bach knew a publisher called Jacob Schuster (apparently unrelated to Joseph Schuster) who was active in literary and musical circles in Leipzig in the 1720s and 1730s³.

At the end of each movement, there is a rounded pause mark above and below the double bar (unlike Bach's copies of BWV 1006a and the Violin Solos). Similar examples can be seen in the extracts given by Kobayashi from the manuscript sources of BWV 31 dated 1714, BWV 994 dated 1720 and BWV 548 dated 1727-32⁴. As shown by Kobayashi, Bach changed the style in which he wrote the C clef around 1723/24, as can be seen in the following extracts, in which the second example shows the C clef in the same form as in BWV 995 (compare to the example above):

¹ Hulshoff, Gerrit. 1944. p.57, Spiessens, Godelieve. 1981.

² Eichberg, Hartwig and Kohlhasse, Thomas. 1982. p.109.

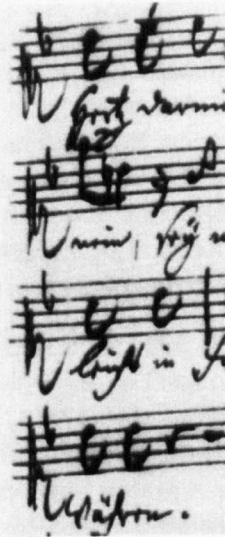
³ Siblin, Eric. 2009. p.196.

⁴ Kobayashi, Yoshitake. 1989. p.74 and p.117.

Extract from the *Klavierbüchlein für Wilhelm Friedrich Bach* by J.S.Bach, probably from 1720



Extract from Cantata *Meine Seufzer, meine Tränen*, BWV 13, soprano, dated 1726



The later form of the C clef is known as the 'hook-form', and its use here supports the theory that the BWV 995 autograph was probably written after 1724 (contrary to the suggestion of Tirabassi, who dated it to 1720-1722, as mentioned above).

All of the evidence from the handwriting, the watermarks and the dedicatee which has been described above indicates that this manuscript was produced no earlier than 1724, and hence almost certainly later than BWV 1011. This does not mean that BWV 995 was transcribed directly from the cello version, as it may have been transcribed from an early version of the Suite, but at least it seems to be certain that BWV 1011 cannot have been transcribed from BWV 995.

It is possible that BWV 995 may actually have been intended for a keyboard instrument, possibly a *lautenwerk*, because the articulation marks might occasionally be more suited to a keyboard rather than a lute¹. Furthermore, Bach himself would have been able to play it on such an instrument, while there is no clear evidence that he could have played it on a lute². Prinz mentions that Bach owned two *lautenwerken*, although neither has survived³.

Eichberg and Kohlhasse have identified enough elements of typical lute technique in the transcription to indicate that a lute was the intended instrument⁴. Nevertheless, there remains an issue about the type of lute which Bach may have had in mind. The upper six courses of the usual German Baroque lute in Bach's day had frets for every semi-tone step and were tuned to A, d, f, a, d', f'. Below the six upper courses, there were usually seven further courses or *diapasons*, tuned in a diatonic scale descending below the sixth course, i.e. going down to A₁. Several of the courses usually consisted of double strings, and sometimes the strings of the same course were tuned one octave apart to give extra depth to the notes.

However, BWV 995 requires one further course, tuned to G₁, implying an unusual 14-course instrument. In the Leipzig University Instrument Museum, there is a 14-course *theorbo* built by J.C.Hoffmann (1683-1750), on which the top two courses have single strings and the others all have double strings. Knowing that Hoffmann lived and worked in Leipzig at the same time as Bach, and that they knew each other well⁵, it is possible that this *theorbo* was the very instrument which Bach had in mind for BWV 995.

The BWV 995 transcription is certainly influenced by the different technical characteristics of the lute compared to the cello. For instance, a cellist can only play two notes truly simultaneously with the bow, or four notes simultaneously *pizzicato* (on a normal 4-string cello), but the lutenist is able to pluck chords with up to five courses simultaneously (one for each finger of the right hand). Furthermore, the notes on the lute start to die away as soon as they have been plucked, but with the bow a cellist can sustain notes at a constant or even increasing volume over several seconds. A cellist can also slur a larger number of notes (up to 16 notes is not uncommon in one bow stroke), while a lutenist can only truly slur up to about 5 notes together, and even then only if the notes are on the same course.

The BWV 995 autograph also gives an insight into the technique of implied polyphony which Bach applied in BWV 1011, as pointed out by Artzt⁶:

¹ This is discussed in detail in section 5.5.

² Discussed in Artzt, Alice. 1968. pp.9-14 and Grossman, Robert. 1987. pp.41-47.

³ Prinz, Ulrich. 2005. p.645.

⁴ Eichberg, Hartwig and Kohlhasse, Thomas. 1982. pp.110-111.

⁵ For instance, Bach and Hoffmann were both godfathers of the second son of the famous lutenist J.C.Weyrauch, see Prinz, Ulrich. 2005. p.641.

⁶ Artzt, Alice. 1968.

The most noticeable difference between the cello and lute copies lies in the additions to the lute part, in most cases of harmonic bass notes, but sometimes of polyphonic lines with varying degrees of individuality and thematic content. Chords are in many cases filled out in the lute version, and ornaments are more plentiful than in the copy for cello. In short, the cello copy gives what might be called the 'bare bones' of the piece, the lute arrangement expands it, clarifying the harmonies and adding more polyphonic elements, and the tablature adds to this some touches of the current performance practice such as ornamentation and rhythmic alterations.

Despite the uncertainties about its dating and origins, and the differences between the technique and capabilities of the lute and the cello, the BWV 995 autograph is an invaluable source of reference for BWV 1011, because it is the only surviving source for this music in Bach's own hand. Some of the details concerning changes which Bach has made to the melodic line, harmony, rhythm and ornamentation can be retro-fitted to produce a new version of BWV 1011, as has been attempted by Markevitch in his edition¹ and by Lim in his thesis², and similar concepts can also be applied to Bach's other Cello Suites. Markevitch's and Lim's reasons for doing this were that the manuscript of BWV 995 is an autograph copy, and is thought to have been produced in the period 1727-31, some years after the Cello Suites were composed, so it may be relied upon to represent an authoritative revision of the original text intended by Bach. However, neither Markevitch nor Lim give a complete rationale for the editorial decisions which they have taken.

Notwithstanding all of the interesting aspects of this manuscript, few editors of Bach's Cello Suites have used it as a significant reference for detailed comparisons, with the exception of Markevitch. Eppstein indicates that the BWV 995 autograph had only peripheral bearing on his edition³.

¹ Markevitch, Dimitry. 2000. (edition)

² Lim, Jungmook. 2004.

³ Eppstein, Hans. 1990. p.17.

2.4.3 The tablature copy of BWV 995

Reference

Musikbibliothek der Stadt Leipzig, Sammlung Becker III.11.3.

According to Grossman, the first known record of this manuscript was when it was in the possession of Carl Becker (1804 - 1877), an organist in Leipzig, before passing to the Leipzig library¹.

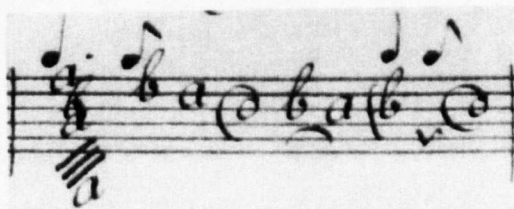
The intabulator and evidence for dating the manuscript

The manuscript is neither signed nor dated, and the identity of the copyist is not known for certain. The other intabulations in the same volume have been identified as the work of Johann Christian Weyrauch, an amateur lutenist with documented links to Bach, but the copy of BWV 995 is in a different hand and the author has not been identified.

Eichberg and Kohlhasse suggest that the manuscript can be dated to the middle of the 18th century on the basis of the watermarks and the handwriting².

The tablature is written according to the early 18th century French lute convention, which is briefly explained here in order to facilitate the reading of music examples which will be provided later in this dissertation. Each line of the staff corresponds to one of the upper courses of the lute. The open string is indicated by the letter 'a', the first fret by 'b', the second fret by 'c' (sometimes written with a letter which looks more like a 'v'), the third fret by 'd', the fourth fret by 'e' and the fifth fret by 'f'. Each fret corresponds to a semitone. Letters below the staff indicate the lower courses. The rhythm is indicated by notes written above the staff. A small + to the right of a note usually means that the finger is to be held down on the note for as long as possible (to maximize the resonance).

Bar 6 of the Courante demonstrates some of the features of the tablature:



In this bar, the opening chord is thus to be a dotted crotchet, D, f, b \flat , f'. The lowest note of the chord would be played on the tenth course. The following notes are quavers e \flat ', d', c',

¹ Grossman, Robert. 1987. p.48.

² Eichberg, Hartwig and Kohlhasse, Thomas. 1982. pp.106-106.

b \flat , a, followed by a crotchet b \flat and quavers f and c'. The curved line below the b \flat and a quavers indicates an appoggiatura from above, i.e. b \flat to a, while the almost vertical curved line before the crotchet b \flat indicates an appoggiatura from below, i.e. a to b \flat .

The BWV 995 tablature copy is a useful source of reference for points which are unclear or possibly erroneous in the BWV 995 autograph. While the latter demonstrates that Bach had a basic knowledge of lute technique, changes which have been introduced into the tablature copy demonstrate how a contemporary lute virtuoso adapted the music in the autograph for performance, taking into account his or her own knowledge of the instrument, and at the same time adding some elements to suit his or her own personal taste. These changes are discussed in some detail by Eichberg and Kohlhase, but the most relevant points for this study are¹:

1. All of the notes at pitch G₁ given in the autograph have been raised by an octave to facilitate playing on a normal 13-course German Baroque lute.
2. Some notes have been lowered by an octave so that they can be played on open strings.
3. Other notes have been raised by an octave, apparently to avoid having to finger on the lower lute courses.
4. Some chords have been adjusted to make better use of the available courses.
5. Some notes have been removed, apparently to avoid duplicating bass notes at the octave or to facilitate playing.
6. Some notes are repeated, apparently to ensure continuation of the sound.
7. Slurs have been made more practical for lute technique (generally shorter).
8. More ornamentation has been added.

2.4.4 The autograph copy of BWV 1006a

Reference

Tokyo, library of the Musashino Music Academy in Tokyo, Littera rara vol. 2-14. 7 folios (14 pages), 35 x 21.5 cm.

The Suite is written in E major, the same key as BWV 1006 from which it was derived.

This manuscript was recorded for the first time in the possession of Franz Hauser, who gave it in 1859 to Otto Scherzer. From the Scherzer family, it passed to Apollo Klinckfuss, and from this family it passed via the dealer Schneider in Tutzing to the Musashino Academy².

¹ Eichberg, Hartwig and Kohlhase, Thomas. 1982. p.111.

² Eichberg, Hartwig and Kohlhase, Thomas. 1982. p.161 (no further information is provided about the persons mentioned).

Identification of the copyist and evidence for dating the manuscript

The manuscript is neither signed nor dated, but the handwriting closely resembles that of Bach. The watermarks indicate paper from the Doubrava paper mill in the Czech Republic, and a date between 1736 and 1749¹. Eichberg and Kohlhasse narrow the date range down to 1735 to 1740 by consideration of the handwriting as well as the watermark, and they suggest that it may have been prepared for a visit by the lutenists Silvius Leopold Weiss and Johann Kropffgans to Leipzig in 1739².

This dating indicates that the manuscript was produced considerably later than the autograph manuscript of the Violin Solos, so it is certainly a transcription of BWV 1006, not vice versa.

The title on the recto page is '*Suite | pour le Clavecin | composé par | Jean Sebast. Bach | Original*' in an unknown hand. On the verso page there is a letter, illustrated below, dated 12 April 1861 from Wilhelm Rust to Julius Jos. Maier, at that time the head of the Music Section of the Royal Library of Munich, suggesting that the comparatively limited range of notes indicates a work intended for lute and not harpsichord:

¹ Weiss, Wisso. 1985. p.50.

² Eichberg, Hartwig and Kohlhasse, Thomas. 1982. p.165.

Unter der folgenden Leiste



geheftet auf den hintersten Raum

Ich, Joh. Seb. Bachs Nachkomme, Wilh. Rindt - Berlin, ... am 12^{ten} April 1861, ...
 Diese folgende Leiste

die Leiste ist - Eine, die auf dem linken Hande gelinde steht, ist ...
 die Leiste ist - Eine, die auf dem linken Hande gelinde steht, ist ...
 die Leiste ist - Eine, die auf dem linken Hande gelinde steht, ist ...
 die Leiste ist - Eine, die auf dem linken Hande gelinde steht, ist ...
 die Leiste ist - Eine, die auf dem linken Hande gelinde steht, ist ...
 die Leiste ist - Eine, die auf dem linken Hande gelinde steht, ist ...
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 die Leiste ist - Eine, die auf dem linken Hande gelinde steht, ist ...
 die Leiste ist - Eine, die auf dem linken Hande gelinde steht, ist ...
 die Leiste ist - Eine, die auf dem linken Hande gelinde steht, ist ...

Die Leiste ist - Eine, die auf dem linken Hande gelinde steht, ist ...
 Am 16^{ten} Mai 1861.



Johann Sebastian Bach
 Conservator der musikalischen (Hochschule) der ...
 Bibliothek - München.

Hausswald and Gerber have suggested that BWV 1006a might have been intended for performance on the harp¹, but more recently Eichberg and Kohlhasse have suggested that the style of the writing seems well suited to a lute, especially in the repeated notes and figures of the Prelude².

Eichberg and Kohlhasse seem to regard BWV 1006a as a rather inferior transcription:

Although the manuscript has many fewer corrections than the autograph of the G Minor Suite BWV 995, this is because the transcription of the Violin Partita is simpler and more straightforward than that of the Cello Suite, which has a more developed voice leading and polyphonic construction³.

Despite this negative assessment, BWV 1006a is a useful source for the purpose of this study, and indeed the validity of the assessment by Eichberg and Kohlhasse will be reconsidered in section 4.6.

The opening of the Gavotte en Rondeau in this manuscript is shown below. The upper stave is written in the soprano clef, and the lower stave is written in the bass clef.



At the end of each movement there is a rounded pause mark above and a pointed pause mark below the double bar.

Eichberg and Kohlhasse suggest that this is the original working copy of the transcription, despite the neatness of the manuscript, on the evidence of corrections in bar 14 of the Loure and bars 37 and 78 of the Gavotte, although on inspection of these bars the corrections appear to be minor⁴. The manuscript is in any case much neater than the BWV 995 autograph.

¹ Hausswald, Günter and Gerber, Rudolf. 1958. p.64.

² Eichberg, Hartwig and Kohlhasse, Thomas. 1982. pp.167-170.

³ My translation from Eichberg, Hartwig and Kohlhasse, Thomas. 1982. p.165. Original text: *Wenn die Hs. Etwa im Vergleich zum Autograph der g-Moll-Suite BWV 995 viel weniger Korrekturen aufweist, so liegt das daran, dass die Bearbeitung der Violinpartita sparsamer und schulmässiger ausgefallen ist als die der Cellosuite, die aufgrund der satztechnischen Anlage in stärkerem Masse Stimmerweiterung und polyphone Ausarbeitung zulässt.*

⁴ Eichberg, Hartwig and Kohlhasse, Thomas. 1982. p.165.

2.5 Additional observations on the sources

Of the four cello manuscripts, three lute manuscripts and three violin manuscripts which have been described here, only two are dated, namely the autograph copy and the copy by Kellner of the Violin Solos. The main source of information for dating the manuscripts is combination of the watermarks and the handwriting. Four of the manuscripts have been signed, namely Bach's autograph copies of the Violin Solos and BWV 995, and the copies by Kellner of both the Violin Solos and the Cello Suites.

Some of the relationships between these manuscripts, described in previous studies relating to Bach's Cello Suites, have been summarised in the sections above. However, new information about possible relationships has been derived from the detailed studies leading to the writing of this dissertation, and will be developed in the following chapters.

3 Scordatura in BWV 1011

3.1 Introduction to the scordatura notation

Scordatura in cello music before Bach's Cello Suites

The use of scordatura in the sources for BWV 1011 is an important link in the chain of arguments concerning the origin of the source manuscripts, so it will be discussed separately in this chapter.

The Italian verb *scordare* literally means 'to mistune', and in the context of music for stringed instruments scordatura may be defined as 'any tuning other than the established norm'¹. Scordatura may be specified explicitly in the musical text, in which case the composer indicates the required tuning at the start of the piece, and writes the notes on the re-tuned string(s) as they would be fingered, not as they would sound (this is further explained below). Alternatively, with implicit scordatura, the notes are written at the pitch that they will sound, and it is only from the music itself that it can be deduced that performance would be facilitated by use of a tuning which is different from the norm.

Probably the most well-known user of scordatura in violin music was Heinrich Ignaz von Biber (1644-1704), who specified scordatura tunings in fourteen of his fifteen 'Mystery (Rosary) Partias' for violin. For the cello, the earliest known works which may have been intended for a scordatura tuning are the Ricercars Nos. 6 and 7 and the G major Sonata by Domenico Gabrielli (1651-1690), but in these pieces the scordatura is only implicit. The manuscripts were written at sounding pitch, and the requirement to tune the top string of the cello down from the pitch a, which is usual today, to g can only be surmised by consideration of the practical difficulties of playing the chords and string-crossing passages on a normally-tuned cello. For instance, all of these pieces contain 3-note chords which can only be played in the conventional way, with the lower two notes played together first and then the upper two notes played together, if the top string is tuned to g, see for example the chords circled in the following extract:

Gabrielli Ricercar No.6, Bars 67-69



bass clef

Although Gabrielli may have had the tuning C-G-d-g in mind for the strings of the cello for these works, the fact that no explicit tuning indication is given at the start suggests that this tuning may actually have been the norm in his part of Italy (Bologna) in the late 17th century. However, for modern cellists it is considered to be a scordatura tuning.

¹ A similar definition is used in Chambers, Mark. 1996. p.xi.

The earliest known use of explicit scordatura for the cello is in Luigi Taglietti's '*Suonate da camera a tré due Violini, e Violoncello, con alcune aggiunte à Violoncello Solo*', Opus 1, dated 1697¹. The second Sonata in this work contains a Capriccio for Violoncello marked *Discordatura* and with an indication that the top string should be tuned down to g instead of the usual a. In the next extract, which is in scordatura notation, all notes upwards from and including the note on the top line of the staff will sound one tone lower than they are written. The opening chord can thus easily be played on three open strings, and bar 2 can be played without a change of string:

Taglietti 2nd Suonate, Op.1, Capriccio, opening bars



The fact that Taglietti felt it necessary to specify the tuning explicitly suggests that, in Brescia where he was working in 1697, this tuning was not the norm.

In the German school of composition before the time of Bach, scordatura seems only to have been used for a bass instrument by Jacob Klein Le Jeune in his '*VI Sonates à une Basse de Violon & Basse Continue, Premier Ouvrage, Livre Troisième*'². Here, all of the strings are required to be tuned up by one tone compared to the modern tuning.

Bach himself is not known to have written any music for violin or cello in scordatura apart from BWV 1011. Buys mentions that the violin sonata in F major BWV 1022 and the trio in G major BWV 1038 require scordatura tuning for the violin³, and this is correct, but recent research has demonstrated that these works are not by Bach⁴.

After Bach's day, the scordatura technique does not seem to have been used in a work for solo cello by any composer until the publication of Kodaly's Sonata for Unaccompanied Cello, Opus 8, in 1915, for which the two lowest strings of the cello have to be tuned down a semitone and the music for the notes on these strings is written one semitone higher than its sounding pitch. In some chamber music and orchestral works such as Schumann's Piano Quartet Op.47, Alban Berg's '*Lyric Suite*' and Stravinsky's '*The Rite of Spring*' the lowest string for the cello has to be re-tuned from C down to B \flat ₁, but this is just to allow a B \flat ₁ to be played, and the notes are written at sounding pitch.

¹ Chambers, Mark. 1996. pp.36-41.

² The only example listed by Chambers, Mark. 1996. pp.42-62.

³ Buys, Hans. 1950. p.243.

⁴ This is fully discussed in Hausswald, Günter and Gerber, Rudolf. 1958. pp.122-125.

The scordatura notation used in Bach's 5th Cello Suite

In CAMB, CBerlin and CVienna the term *Discordable* has been used at the beginning of the Suite together with a preparatory chord before the movement title 'Prelude' to indicate that the top string should be tuned down by one tone to g, as illustrated in the extract below from CBerlin. The term *Discordable* is itself interesting because it suggests that the tuning 'can be' changed, but that it is not necessarily mandatory. A mandatory indication might have been *Discordatura* as indicated by Taglietti. Nevertheless, to perform the music as written in these three copies, it is necessary to follow the indicated re-tuning of the top string.

BWV 1011 Prelude, Bars 1-6



This tuning is similar to that of Taglietti's *Suonata* discussed above and likewise suggests that it was not the norm at the time(s) and place(s) where the manuscripts were produced, but that it was nevertheless not very unusual. The notes to be played on the lowered top string are all written in these manuscripts one tone higher than they will actually sound, so that they can be fingered intuitively by a cellist as if they were written in conventional notation. For instance, in bar 5 of the Prelude in BWV 1011 (circled in the example above) the highest notes are written as d', which would normally be played by a cellist with a fourth finger in first position. In this case, the fourth finger in first position is indeed likely to be used, but, because the string has been tuned down by one whole tone, the notes will sound one tone lower, i.e. as c'.

This notation can be quite confusing for someone who is not familiar with it (and it certainly caused some confusion amongst the scribes of the manuscripts, as will be discussed later in this chapter), but it facilitates the execution of the Suite for the performer, once he or she has become accustomed to the different convention.

The use of scordatura in BWV 1011 is especially interesting for two main reasons. Firstly, it is actually an implicit performance instruction concerning which of the two upper strings should be used for certain notes, giving an insight into Bach's expectations or preferences for string-crossings and use of either open or stopped strings. Secondly, the confusion among the copyists with the scordatura in the manuscripts is very informative because it can be used to make inferences about the conventions of the period, and the relationships between the manuscripts. These issues will be discussed in section 3.2.

The key signatures used in the scordatura copies

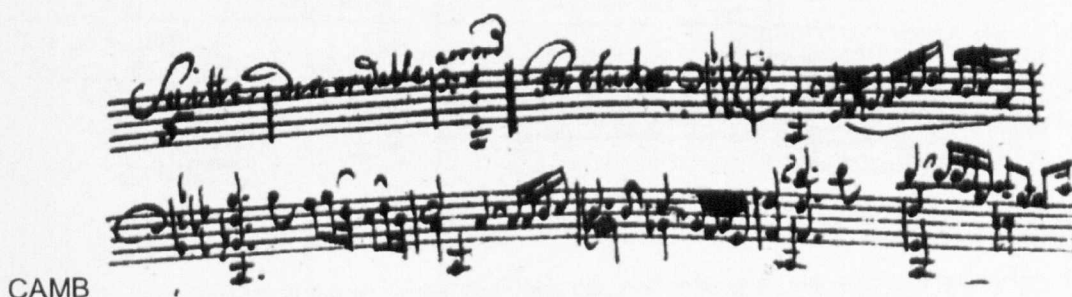
In today's convention, a flat or sharp indicated in the key signature is applicable for all occurrences of the corresponding note, regardless of octave. However, Bach usually indicated the flat or sharp at each relevant octave up to the note above the staff, i.e. up to $b\flat$ in the bass clef or up to $g\sharp$ in the treble clef. For instance, in the autograph copy of the Violin Partita BWV 1006, which is in E major, the sharps are indicated as in the example below:



For the copyists who produced the manuscript sources for BWV 1011 there was an additional complication, because the top line of the staff actually represents the pitch g (scord.a), which is not to be flattened, the note immediately above the staff is $a\flat$ (scord. $b\flat$), and the $e\flat$ is written as f , i.e. without a flat. Each of the copyists of the manuscripts in scordatura has adopted a different way to resolve these difficulties in the key signature, probably because scordatura tuning for the cello was an uncommon practice and there was no widely-accepted contemporary convention in these circumstances.

For each movement, and on every staff, CAMB has the five-flat key signature shown in the extract of the Prelude illustrated below. The lowest three flats of this key signature are correct (flattening the B, e and A), and so is the flat written above the staff (flattening the a (scord.b)), but the flat shown on the top line of the staff is not applicable in scordatura because this note is actually g in scordatura. For instance, the first quaver on the second minim beat in bar 2 of the Prelude falls on this line, but is actually to be played on the open string, sounding g and not flattened.

BWV 1011 Prelude, Bars 1-7



In CBerlin, all of the staves in all of the movements except the Allemande have a key signature with four flats and one natural, as illustrated in the extract in the previous sub-section, showing the opening of the Prelude. However, the Allemande in CBerlin has a key signature with only three flats and one natural (missing the $A\flat$), which is repeated on every staff of the movement, as shown in the next extract:

BWV 1011 Allemande, Bars 1-6

CBerlin

The key signature given in CBerlin for all of the movements except the Allemande seems to be the most logical choice out of the alternatives given in the sources, making it clear by use of a natural that notes on the top line of the stave are not flattened unless there is an explicit flat sign, and that the only note above the stave which is to be flattened is the written $b\flat$ (sounding $a\flat$). The key signature in the Allemande in CBerlin seems simply to be an error, because the $A\flat$ is certainly applicable. However, it is curious that this flat has been systematically omitted on every stave of the movement, and it is possible that it was linked to an assumption that the movement had an implicit Dorian-mode key signature (discussed further in section 4.3.3).

In CVienna, there is a single \sharp symbol at the start of the whole Suite, perhaps to emphasise that the top string is to be tuned to g , and then for each movement a key signature is given with only 3 flats, as in the extract of the Prelude shown in the next example:

BWV 1011 Prelude, Bars 1-6

CVienna

The key signature in CVienna is given only on the first stave of each movement, the other staves having no key signature or clef at all. There are no flats or naturals on or above the top line of the stave, making this key signature less clear than the key signature used in CBerlin because it fails to indicate that from the top line of the stave upwards only the $b\flat$ is applicable.

3.2 Scordatura issues

The scordatura issues concerning the sources for BWV 1011 will be discussed here under separate sub-titles for errors and confusion with the scordatura notation, choice of strings implied by the scordatura, a question whether BWV 1011 was originally intended to be played in scordatura, and a description of some uses of scordatura which are difficult to interpret.

Errors and confusion with the scordatura notation

The process of composing or transposing a work into the form of scordatura that has been used in CAMB, CBerlin and CVienna was a complex business, understandably causing a certain amount of confusion in the minds of the copyists, possibly also in the mind of Bach, and resulting in some erroneous passages in all of the sources. The greatest quantity of errors with the scordatura occur in CAMB and CKellner, with considerably fewer in the other sources, as demonstrated in the summary provided by Table 2 in the Appendix. In this table, a Y indicates a bar with a clear error and Y' indicates a bar where the copyist has left some ambiguity between two notes without clearly indicating which he thought was correct.

In CAMB, there are eleven scordatura errors in total, of which nine are unique to CAMB and the remaining two also occur in CBerlin and CVienna. A typical example occurs in bar 47 of the Gigue, where CAMB has a descending motif g-g-f-e \flat (scord.a-g-f-e \flat) and CBerlin has g-f-e \flat -d (scord.a-f-e \flat -d) preceded by a grace-note (CVienna is not shown below but is the same as CBerlin in this bar). Thus, CAMB is indicating an unlikely repetition of the note g, while CBerlin is indicating a more likely fragment of a descending scale. It seems safe to conclude that AMB simply had a descending scale in her mind and forgot that the first note of bar 47 was the only note of the bar which needed to be transposed up by one tone. LCJSB confirms the descending scale. Most of the other scordatura errors in CAMB are rather similar to this example.

BWV 1011/995 Gigue, Bars 46-47

The image displays three musical staves for comparison. The top left staff, labeled 'CAMB', shows a single melodic line with a descending motif. The top right staff, labeled 'CBerlin', shows a similar melodic line but with a grace note preceding the first note. The bottom staff, labeled 'LCJSB', shows a two-staff system with a descending scale in the upper voice and a corresponding bass line.

The errors with the scordatura strongly suggest that AMB was copying from an original source which was either not in scordatura at all (so she was making the transposition herself and made errors in the process) or in scordatura but with many scordatura transposition er-

rors which she did not detect. The latter alternative seems to be the more likely as it is improbable that Bach would have given AMB the onerous task of making the complex scordatura transposition herself.

The only scordatura-related error which is unique to CBerlin occurs in bar 84 of the Prelude, where the first semiquaver is written as g on the d string in CAMB and CVienna, but as the open top string (sounding g) in CBerlin. The subsequent $a\flat$ in the same voice two notes later means that a real sounding $a\flat$ is to be played on the d string, forming a technically convenient alternation between the upper two strings, and allowing the motif formed by the lower voice (which is one of the main motifs of the fugue section in the Prelude) to be played on the same string and therefore to sound as a truly separate voice from the pedal notes in the upper voice. For the same reasons, the first semiquaver in bar 84 should be specified to be played on the d string, as indicated in CAMB and CVienna. This error in CBerlin may have been a simple oversight, but it suggests that the copyist was not familiar with cello technique, otherwise he or she would probably have realised the technical implication of what had been written.

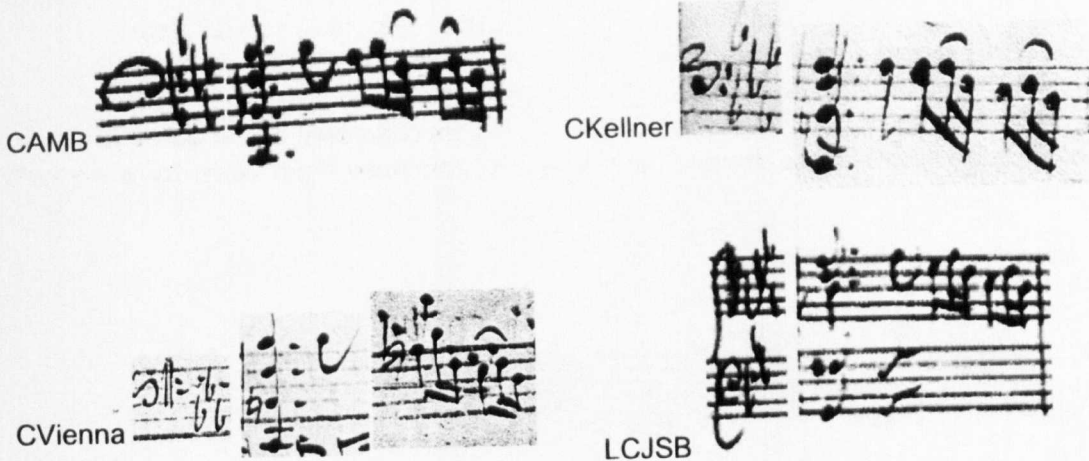
BWV 1011/995 Prelude, Bars 84-87

The image displays a comparison of musical notation for bars 84-87 of the Prelude in BWV 1011/995 across five different editions. The editions are labeled on the left: CAMB, CKellner, CBerlin, CVienna, and LCJSB. Each edition shows a staff of music with notes, rests, and accidentals. The CBerlin edition is highlighted with a grey background, indicating a specific scordatura error in bar 84 where the first semiquaver is written as g on the d string, while the other editions show it as a natural g on the open top string.

In bar 2 of the Prelude (illustrated below), CVienna has a scordatura error which does not occur in the other sources. There is an explicit natural in front of the first written a on the top line of the stave, implying that it should sound $a\sharp$ (not g), which seems very unlikely here as

it is preceded and followed by notes sounding $a\flat$ (scord. $b\flat$) in the same bar. CAMB and CBerlin (not shown below) indicate a , which means that the open top string should be played sounding g and seems to be correct. CKellner shows signs of confusion between g and $a\flat$ with the same note, but LCJSB indicates g (lute d') and therefore agrees with CAMB and CBerlin.

BWV 1011/995 Prelude, Bar 2



As CKellner is not in scordatura, it might be expected that it would contain no scordatura-related errors. However, there are actually eleven errors which can be attributed to confusion with scordatura tuning in CKellner, and this is very significant when considering the relationships between and origins of the sources.

For instance, in bar 85 of the Prelude (illustrated above) a scordatura-related error occurs in CKellner where the first note is given as $a\sharp$, which does not fit with the harmony of this passage. CAMB, CBerlin and CVienna all have a written $b\flat$ as the first note of the bar, while LCJSB has been slightly re-composed and has a $b\flat$ (lute f') as the second note. If it had not been preceded by the written (and sounding) $a\flat$ in bar 84 in the same voice, the written $b\flat$ in the scordatura sources at the start of bar 85 would have indicated a sounding $a\flat$, but in this case the performer must assume that it is a sounding $b\flat$, to be played on the d string, and forming one of the main motifs of the fugue when combined with the lower notes of the previous bar. This is quite a complex issue, requiring some knowledge of cello technique, and it is not very surprising that Kellner was confused by it.

Such errors must have been introduced into CKellner during a process of reverse transposition from scordatura back into 'normal' tuning. Stinson and others suggest that Kellner wanted his copy in 'normal' tuning because he wished to study it on the keyboard, for which the scordatura would not have been applicable¹, but it is also possible that Kellner intended his copy for performance on a bass viol (see discussion of this point in sections 2.2.2 and

¹ Stinson, Russell. 1990. pp. 60-61.

4.4), for which the form of scordatura indicated in CAMB, CBerlin and CVienna would not have been applicable because the strings of a bass viol are differently tuned from those of the cello.

An example of a scordatura error in CKellner which is more typical than the error in bar 85 of the Prelude occurs in bars 198-199 of the Prelude. In bar 198 of CAMB, the semiquavers are $b\flat$ - $a\flat$ - $b\flat$ - g (scord. c' - $b\flat$ - c' - $a\flat$), and the first note of bar 199 is $a\flat$ (scord. $b\flat$). In CKellner, the notes are written at the same pitch as in CAMB, but will sound at the pitch at which they are written. CAMB makes more musical sense because it ensures a regular descending line in thirds, c' - $a\flat$ - f (scord. d' - $b\flat$ - f), for the first notes of the bars 197-199-201. Furthermore, all of the other sources confirm the version of this passage as given by CAMB. It can be concluded from this that Kellner just copied these notes mechanically as he saw them in the original source which he was copying, and forgot to transpose them down for a normally-tuned cello.

BWV 1011 Prelude, Bars 197-201



Another feature of CKellner arising from transposition from a source in scordatura is that flats have occasionally been copied for notes above the staff which were necessary in the scordatura source, where only the $b\flat$ applies above the staff, but which were not actually necessary in CKellner, where all three flats of the C minor key signature apply in all octaves. An example occurs in bar 26 of the Allemande, where the flat in front of the a on the top line of the staff in CAMB (rather unclear in the extract shown below but slightly clearer in the actual manuscript) is necessary to indicate that it is a real $a\flat$, not an open string sounding g , but in CKellner it is unnecessary because there is already an $a\flat$ in the key signature, and there have not been any notes of pitch $A\sharp$ in the immediately preceding bars, in any octave.

BWV 1011 Allemande, Bars 24-26

There is also one isolated case in LCJSB where Bach himself may have been confused by the scordatura. This occurs in bar 13 of the Courante, illustrated below, where all of the sources for cello have G-b \flat -d' (scord.G-b \flat -e') for the first chord of the bar. All editors have assumed that the middle note is to be played at the written pitch, on the d string, and the upper note on the top string, thus forming a chord of G major which would be quite logical here. An added complication later in the bar is that there is a b \flat to be played on the top string which is therefore written as c \sharp in the scordatura sources (and as b \sharp in CKellner in a special notation discussed in section 4.2), actually sounding the same as the middle note of the opening chord although it is written differently, thus demonstrating some of the difficulty of interpreting the scordatura notation.

LCJSB includes an A \flat (lute e \flat) in the opening chord of bar 13 of the Courante, not the B \flat which might have been expected from reference to the sources for cello, so that the chord in LCJSB is equivalent to G-A \flat -d-g-d' for the sources for cello. In LTAB there are six notes in the chord, equivalent to G-B \flat -d-g-b \flat -d', making a chord of G major which seems more harmonically correct. The A \flat in LCJSB suggests that Bach may have referred to a scordatura copy when writing this bar in LCJSB, and accidentally transposed the B \flat down to A \flat without noticing the error, which was detected and corrected by the author of the tablature version. Still more surprisingly, Bach apparently made a similar error in LCJSB in bar 12 of the Courante (also corrected in LTAB) by including an A \flat (lute e \flat) in the chord just before the double bar. The error in bar 12 has been counted in the tables in the Appendix as a normal copying error, not a scordatura error, as there is no B \flat in the corresponding chord in the sources for cello.

BWV 1011/995 Courante, Bars 11-13

CAMB 

CKellner 

LCJSB 

LTAB 

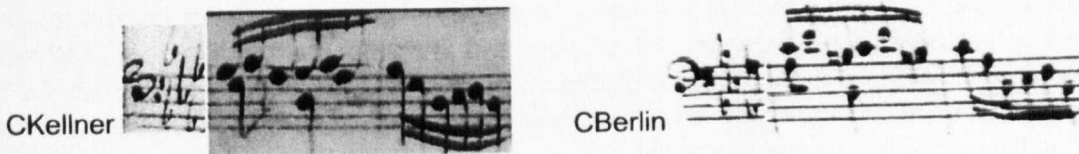
An interesting comparison to bar 13 of the Courante can be made by considering bar 19 of the Allemande in LCJSB, illustrated below. They are very similar bars, both occurring just after the double bar in the movement, and opening with the same chord. The # symbol in front of the g (lute d') on the first beat of bar 19 of the Allemande should almost certainly have been written in front of the b (lute f') in the same chord, as there would otherwise be both g and g# (lute d' and d#') in the same chord, the g (lute d') being in the lowest voice. The chord is probably intended to be G-d-g-b \flat -d' (lute d-a-d'-f \sharp -a'), and this is indeed how it appears in LTAB. This has not been counted here as a scordatura error because it is just a mis-placed accidental, but it is curious that Bach should make such relatively simple errors in both bar 19 of the Allemande and bar 13 of the Courante in more or less the same dominant chord.

BWV 995 Allemande, Bars 18-19



There are two cases where all three sources in scordatura seem to have the same scordatura-related error, occurring in bars 42 and 142 of the Prelude, and each time concerning the practical limitations of the use of strings on the cello. As these errors occur in three of the copies, they may also have been present in Bach's original manuscript(s) from which they were derived. In bar 42, all of the scordatura versions indicate an open top string g (scord.a) for the lower voice at the start of the bar (of the copies in scordatura, only CBerlin is illustrated below). This is unplayable with the note above it, which must also be played on the top string in order to sound as $b\flat$ (scord.c'). The first note in the lower voice should have been written as g, indicating that it is to be played on the d string. Both CKellner and LCJSB confirm that the chord at the start of the bar should be g-b \flat , but only CKellner is illustrated below.

BWV 1011 Prelude, Bars 42-43



In the otherwise identical bar 62, Bach seems to have noticed this problem, because all of the scordatura sources indicate that the g on the first beat should be played on the d string:

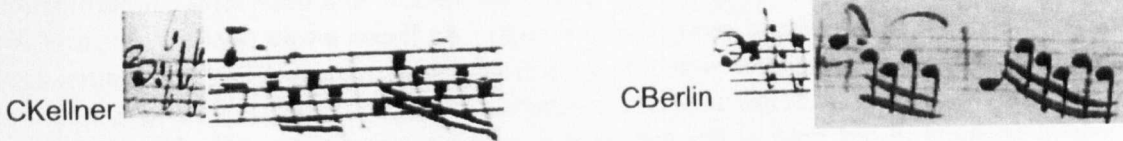
BWV 1011 Prelude, Bars 62-63



The scordatura error which occurs in bar 142 of the Prelude in all of the sources in scordatura is not so simple, but seems nonetheless to be a genuine error. The first note is written as if it were to be played on the open top string, sounding g. This can be played together with the $e\flat$ which follows, but the d string (second string of the cello) would prevent the open

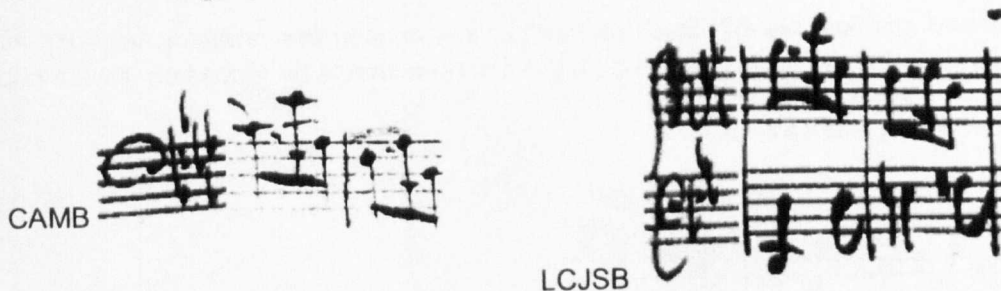
top string being played together with the subsequent notes at pitch c which have to be played on the G string (third string of the cello). This may explain why the first note is shown as only a dotted quaver and not a dotted crotchet in most of the sources for cello (actually only a quaver in C*Vienna*). In all other occurrences of this motif, however, where the first note is to be held longer than the initial quaver of the bar, it is indicated as a dotted crotchet in all of the sources (in bars 110, 114, 138, 146, 171 and 209). If the first note had been indicated as g to be played on the d string, then it could easily be held on for the full length of the bar as a dotted crotchet while the semiquavers are being played. CKellner also indicates the first note as a dotted quaver, supporting the suggestion that Bach may himself have overlooked the opportunity to hold the g on for the full bar here in all of the original sources of this Suite from which the surviving copies were derived.

BWV 1011 Prelude, Bars 142-143



A side-effect of the frequent confusion in CAMB with the scordatura is that some of the early editors (who were mostly using CAMB as their main source) assumed more scordatura errors than there actually are. For instance, in bar 34 of the Gigue CAMB has g (scord.a) as the second note, and early editions by Klengel and Grützmacher attempted to improve it to a \flat (scord.b \flat), assuming that CAMB contained a scordatura error here, and that Bach intended a rising third at the start of this bar as in bar 33. CKellner does not include this bar, so cannot be used as a reference, but CBerlin and C*Vienna* are identical to CAMB here. LCJSB also indicates g (lute d') and includes A \sharp (lute e \sharp) in the bass which extends for the first 2 quaver beats of the bar, so an a \flat (lute e \flat ') above it would not seem to be appropriate, and CAMB is probably correct in this bar.

BWV 1011/995 Gigue, Bars 33-34



Choice of strings implied by the scordatura

In a piece written for a cello in normal tuning, the choice of string for playing each note is normally left to the performer, limited only by the tuning of the strings, the performer's technique and the size of the performer's hand. However, the scordatura provides an implicit performance instruction for which of the upper two strings of the cello should be used to play certain notes, which has an important effect on the quality of sound which is produced and provides a useful practical guide to the expected or intended use of strings and fingering positions in Bach's circle. For instance, the scordatura can indicate whether the note g should be played on the d string with a soft, mellow effect arising from the thicker string and the potential to use vibrato, or on the open top string with a brighter effect from the thinner string and without the possibility to use vibrato.

The context of each particular passage has to be taken into account for the scordatura to be interpreted correctly. This is not always straightforward, but in most cases where there is a note written as g, a♭, a♯, b♭ or b♯, the string to be used is implicitly specified in the sources in scordatura. These notes fall just above the centre of the range of the instrument as it is used in BWV 1011, so they occur quite frequently and provide many examples of the intended choice of strings.

A summary of the more significant examples influencing the choice of strings is provided in Table 3. In most cases, the indicated choice is certainly desirable for a performance, such as in bar 30 of the Allemande shown below. In this example, the entire first crotchet beat of the bar can be played as written in the scordatura versions on a cello tuned in scordatura, with the open d string accompanying the notes on the top string. The upper notes could alternatively have been written as b♭, a♭ and g, all to be played on the d string, but then they could not be played together with the open d string, and it would be more awkward to play them with a stopped d on the G string. Thus the way to play the opening crotchet beat on a cello in scordatura tuning, as specified in the scordatura sources here, is not only the easiest way, but also seems to have been especially designed to ensure use of the lower fingering positions and the open strings. On a cello in normal tuning, as shown in the CKellner version of this bar, the more awkward use of the stopped d on the G string is the only option for playing this beat.

BWV 1011 Allemande, Bar 30



Bar 30 of the Allemande suggests that use of the lower fingering positions with open strings may have been preferred in Bach's time, and this is supported by consideration of the second half of bar 20 in the Courante, where the scordatura versions such as CAMB shown below seem at first glance to show rising thirds from the previous beat e♭-g to f-a. However, the upper note of the second chord is actually indicated to be played on the open top string, which will sound g, so there is no change in pitch of the upper note between these chords, only a change of string. CKellner and LCJSB confirm that the third beat should start with g in the upper voice. On a normally-tuned cello, these chords can only practically be played

with a rather awkward use of the thumb. As written in the scordatura sources, the chord at the start of the third minim beat is easy to play and will be brighter than the previous chord because of the open string. The effect of playing this bar as shown in CKellner, where the g is actually tied over, on a normally-tuned cello would be much softer than as shown in the sources written in scordatura.

BWV 1011/995 Courante, Bar 20



Perhaps the most striking example of choice of strings occurs in bar 27 of the Prelude, where all of the sources in scordatura have a written g at the top of the chord on the first beat, implying that it is to be played as a stopped note on the d string, followed by a quaver g (scord.a), to be played on the open top string, as shown here in CAMB.

BWV 1011 Prelude Bar 27



This notation in bar 27 is rather surprising. One might have expected the top note of the chord to have been indicated on the open top string (written as scord.a), allowing the whole chord to be played on the upper three open strings, with a bright sound and maximum resonance from the open strings. Written as it is in the scordatura sources, the top note cannot be played simultaneously with the open d string, so it implies that the chord should be arpeggiated by playing either:

the bottom two notes on the open strings and then the upper g as a stopped note on the d string either alone or with the lower G but without the d,

or

the bottom two notes as stopped notes on the G and C strings respectively, and then the upper g as a stopped note on the d string with the d as a stopped note on the G string.

Either way, the chord cannot be played with the three open strings, and the resulting sound will be warm but comparatively soft.

It seems to have been an equally deliberate decision in all three scordatura sources that the last quaver of bar 27 (which is the opening note of the fugue section of the Prelude) should be played on the top open string, giving a contrasting bright effect.

The explanation for the choice of strings in bar 27 may be that it was intended to sacrifice the possibility of playing the open strings in order to provide a soft end to the first section of the Prelude, and to create a greater contrast with the last quaver of the bar on the open top string which opens the fugue section. As all three scordatura sources are the same in this bar, the original source(s) from which they were derived must also have been the same, so this choice of strings seems to have originated from Bach himself. However, it is remarkable that brilliance has apparently been sacrificed on this important cadence at the end of the whole first section of the Prelude.

Another possible explanation of the chord in bar 27 which would have important consequences for modern performers may be that it was expected that the chord would be arpeggiated, with the G and d first played together on the open strings, and then the g played alone as a stopped note on the d string. Although it may at first seem to be a minor issue, if this interpretation is correct and implies that it was not unusual in Bach's day to arpeggiate chords (i.e. to play the notes separately but in quick succession, starting from the bottom), then there would be very significant consequences for the interpretation of the remainder of the Suite, because it would be a justification for arpeggiating other chords as well, thus facilitating the execution of the whole Suite on a normally tuned cello. Indeed, the same technique could be applied for the chords in Gabrielli's Ricercars which were mentioned in section 3.1, thus avoiding scordatura there as well.

A similar chord to that of bar 27 of the Prelude occurs just before the double bar in bar 12 of Gavotte I, but there it is notated in the scordatura sources with g (scord.a) at the top of the chord, meaning that the open string should be played, and implying that the whole chord should be played on the upper three open strings of the cello, with maximum resonance. Thus, the effect would be very different from the execution of the chord in bar 27 of the Prelude, even though the note pitches are the same. This chord also happens to be the same as the chord in the opening of the Taglietti Suonate shown in section 3.1.

BWV 1011 Gavotte I, Bar 12



Was BWV 1011 originally intended to be played in scordatura?

It is generally assumed that scordatura was intended for BWV 1011 so that the open top string would be tuned to the dominant of the main key (C minor), allowing both g and G to be played on open strings with another open string vibrating in sympathy one octave above or below, thus generating extra resonance. It also facilitates the execution of certain chords and string-crossing passages, and gives the cello a 'darker' tone quality which may be considered suitable for this Suite. However, it may also have been indicated for the purely practical reason that it was easier to play in the key of C minor with two strings tuned to the frequently-occurring dominant, hence requiring no left hand fingering (i.e. this may have been just as important as adding extra resonance to the G's in the piece).

However, many modern cellists continue to play this Suite on a normally-tuned cello. One reason for this is the inconvenience of making a substantial re-tuning of the cello to practise and play this Suite, and a reverse tuning procedure afterwards for playing other works. This is not only tedious, but it also affects the stability of the instrument and the strings because of the changes of string tension and pressure on the bridge and sound-post. The sound-post and bridge are very sensitive and they are crucial for the quality of sound produced by any instrument, especially if it is an old instrument.

Furthermore, only some 12-15 chords (partly depending on the size of the player's hand) in the whole Suite have to be re-worked when playing BWV 1011 on a cello with normal tuning. Modern editions written for a normally-tuned cello usually modify these chords by leaving out some less important notes such as doubled notes, or by moving some notes up or down an octave to make them playable. Most of the other difficulties in passages with string-crossings can generally be overcome without too much difficulty.

As there are so few technical reasons for using scordatura in BWV 1011, it seems likely that Bach only proposed it in order to obtain the slightly darker tone colour. Scordatura had been used by Biber to gain dramatic chordal results in his violin sonatas, but its use here is hardly noticeable. Indeed, it could be claimed that it is more in keeping with the Baroque spirit for a performer to play this Suite on his or her own instrument in the normal set-up, whatever that might be. For a performance in a modern concert hall with an audience accustomed to today's habits and sounds, it can certainly be argued that a cello with normal tuning can justifiably be used without negative effects on the authenticity of the performance.

4-note chords requiring scordatura tuning, because all four notes have to be played on only three strings if a normally-tuned cello is used, occur in the following bars:

Prelude, bars 2, 16 and 17

Allemande, bars 9 and 11

Courante, bar 4

Gavotte I, bar 32

There are also 3-note chords which lie in such a way that they could only be played on a normally-tuned cello with great difficulty and use of high positions in:

Allemande, bars 17 and 24

Courante, bar 15

Gavotte I, bars 1 (first chord of the movement), 15 and 20 (2 chords)

Apart from the facilitation of certain chords, the scordatura has also been used in other passages either to simplify the playing or to give extra resonance on certain beats. For instance, in bar 97 of the Prelude the upper semiquavers can all be played on the open top string (tuned to g) on a cello tuned in scordatura, both facilitating the execution of the bar and giving extra resonance to the pedal note, as illustrated in the next example. On a normally tuned cello, bar 97 would have to be played entirely on the d string, with considerably less brilliance.

BWV 1011 Prelude, Bars 96-97



Similarly, the whole of the first bar of Gavotte I, including the two upbeats, can easily be played in first position on a cello tuned in scordatura, but requires some difficult position work on a normally-tuned cello. In fact, the very first upbeat chord is not practical at all for a normally-tuned cello, and is usually modified for performance by lowering the c to C.

BWV 1011 Gavotte I, Bar 1



Occasionally, the implied choice of strings is actually inconvenient or even impossible to play on a cello tuned in scordatura, suggesting that the Suite may not originally have been conceived for a cello in scordatura tuning. Earlier in this section, the example was discussed of bar 42 in the Prelude, where the use of strings in all of the scordatura sources is impractical and has been classified here as an error. In bar 99 of the Prelude, the repeated a[♯] (scord.b[♯]) can be played on the open a string on a normally-tuned cello, making it easier to play and using the resonance of the open string for the pedal note. This bar is more awkward to play on a cello tuned in scordatura, and is the converse of bar 97 quoted above, which was easier to play on a cello tuned in scordatura.

BWV 1011 Prelude, Bars 98-99



Bars 166-170 of the Prelude, shown below as they appear in C*Vienna*, are also easier to play on a normally tuned cello. On a cello tuned in scordatura, these bars require very awkward extensions and position changes between the low notes on the d string at the start of each bar and the subsequent group of five notes played on the upper string. However, on a normally-tuned cello the whole passage of five bars can be played rather easily in second position except for the b in each bar (shown as a c \sharp in the scordatura extract below) which requires a relatively simple extension of the first finger back by one semitone.

BWV 1011 Prelude, Bars 166-170



Another difficulty for performance on a cello tuned in scordatura occurs with the chord on the first beat of bar 15 in the Allemande, which is shown in the same way in all of the scordatura sources, but requires a stretch of the left hand which would be impossible for most cellists. It is much easier to play this chord on a normally-tuned cello.

BWV 1011 Allemande, Bar 15



Thus, the scordatura has certainly been exploited in a rather limited number of bars, but in other cases the use of scordatura has not been well considered and is even unplayable as written. This suggests that the scordatura was only introduced as an after-thought, and that the Suite may originally have been composed for a cello in normal tuning, or perhaps not even for a cello at all.

Some uses of scordatura which are difficult to interpret

There are some cases in the three manuscripts in scordatura where the scordatura notation is difficult to interpret and only careful analysis of the musical context indicates the intended pitch of the notes to be played.

The example of bar 85 in the Prelude has already been discussed earlier in this section in the context of Kellner's misunderstanding of the scordatura. Although it does not contain any errors in the sources, bar 18 of the Courante gives another illustration of the complexity arising from the combination of the conventions for use of accidentals and scordatura. The first note of bar 18 is written as a without an accidental in any of the sources. In the scordatura sources this would normally indicate the open top string sounding g, but here a real sounding $a\flat$ is to be played on the d string, which can only be deduced in the scordatura versions by the fact that it is the same note as the last note of the previous bar (following the convention that an accidental is not repeated on an adjacent note even when there is a bar-line between¹). On the other hand, the $a\flat$ in the chord on the second minim beat in bar 18 is also to be played on the d string, but had to be written with an explicit accidental because it is not adjacent to another $a\flat$. The last note of the bar is also a sounding $a\flat$, but this time it is to be played on the a string, so it is written as $b\flat$ in the scordatura sources. Bar 18 thus has three different ways of indicating a note of $a\flat$ pitch in the scordatura sources! LCJSB and CKellner confirm this interpretation.

BWV 1011/995 Courante, Bars 17-18

The image displays three musical staves for comparison. The top staff, labeled 'CMB', shows a single melodic line. The middle staff, labeled 'CKellner', shows a single melodic line with some scordatura notation. The bottom staff, labeled 'LCJSB', shows a two-staff system with a treble and bass clef, containing both melodic and harmonic notation with scordatura.

¹ This convention will be fully discussed in section 4.2.

Perhaps the most difficult cases for interpreting the scordatura occur in bars 7 and 8 of Gavotte I, shown in the following extracts.

BWV 1011/995 Gavotte I, Bars 7-8

The image displays five musical staves, each representing a different edition of the Gavotte I, BWV 1011/995, specifically focusing on bars 7 and 8. The staves are labeled on the left as follows:

- CAMB**: Shows a staff with a treble clef and a key signature of one flat. The notation for bar 7 includes accidentals for the lower quaver notes.
- CKellner**: Shows a staff with a treble clef and a key signature of one flat. The notation for bar 7 includes accidentals for the lower quaver notes.
- CBerlin**: Shows a staff with a treble clef and a key signature of one flat. The notation for bar 7 includes accidentals for the lower quaver notes.
- CVienna**: Shows a staff with a treble clef and a key signature of one flat. The notation for bar 7 includes accidentals for the lower quaver notes.
- LCJSB**: Shows a staff with a treble clef and a key signature of one flat. The notation for bar 7 includes accidentals for the lower quaver notes.

As can be seen here, in bar 7 there is considerable confusion in the sources about the lower quaver notes, arising from the conventions about the use of accidentals and scordatura. Which of them should sound as a^{\sharp} , a^{\flat} or g ? CAMB gives flats before the first and third notes written a , no accidental before the second a , and a natural before the fourth a . CKellner gives the first two lower quavers as g , the third as a^{\flat} and the fourth as a^{\sharp} . CBerlin and CVienna agree with each other, treating the first and third as a^{\flat} (scord. b^{\flat}), the second as g , and the last as a^{\sharp} . LCJSB agrees with CBerlin and CVienna, but has no explicit flats before the second and sixth notes of the bar because they are flattened anyway owing to the non-scordatura key signature.

If CAMB is rigorously applying the convention that accidentals only apply for the note to which they are attached, then CAMB, CBerlin, CVienna and LCJSB actually agree with each other in bar 7 in terms of note pitch, but CBerlin and CVienna are indicating that the fourth quaver should be played on the softer d string, while CAMB is indicating that it should be played on the open top string. Use of the open string for the fourth quaver of the bar is

probably neither desirable nor even practical because it is better to distinguish the two voices by playing them on separate strings, and easier for the fingering and bowing to play the notes on alternate strings, so the version given by CBerlin and CVienna is preferable here. CKellner gives a different note (g) for the second quaver of the bar, which may be due to confusion with the scordatura. Kellner may have thought that g at this point could be possible as a continuation of the g pedal in the same voice in the previous bar, but if one considers that this bar forms a sequence with the two previous bars, then the second quaver should sound as a \flat .

In bar 8, the second note of the upper voice is clearly written as b \flat in CBerlin and CVienna. In CAMB there is a written b, but it is unclear whether there is intended to be a flat symbol before it or not (the flat seems to have been crossed out, although it is not clear by whom). Kellner seems to have assumed that the whole bar was written for the top string of the cello (a not unreasonable assumption bearing in mind the confusion with the notes of pitch a \flat and a \sharp in the previous bar), and has therefore assumed that the second note should sound as a \flat . However, LCJSB has b \flat (lute f') as the second note, suggesting that Bach really intended a sounding b \flat also for the cello version, and implying that this is the only note of the bar in the scordatura versions which should be played on the d string of the cello. A sounding b \flat makes sense here as it continues the chromatic lower line which started in bar 7, similar to the examples of bars 84-85 of the Prelude discussed above.

3.3 Conclusions on the scordatura

Three of the surviving sources for BWV 1011 are written for a cello tuned in scordatura, with the upper string tuned down by one whole tone from the usual a to g. The notes to be played on this string are written as they would be fingered, but will sound one note lower than they appear.

This rather unusual and fairly complex notation appears to have been chosen so that the frequently-occurring notes on the dominant of the key of the Suite (C minor) can be played on an open string, making them easier to play than stopped notes, and also giving extra resonance to the dominant because there is always at least one open string which can vibrate in sympathy whenever the dominant is played, in any octave. However, sometimes the musical text is actually more difficult to play on a cello tuned in scordatura than on a normally-tuned cello, so it is possible that scordatura was not originally envisaged for the Suite and was introduced as an after-thought. This latter possibility is supported by the rather limited exploitation of the scordatura in the composition of this Suite, with only some 12-15 chords being impossible to play as written on a normally-tuned cello. Also, the use of the term *Discordable* at the start of the manuscripts in scordatura suggests that use of scordatura was optional.

The complexity of the scordatura notation is sometimes difficult to interpret, even for the modern performer, and it has caused some confusion amongst the copyists, both in the notation of a suitable key signature and in the representation of the musical text. This is most evident in CAMB, suggesting that AMB was copying from an original source which was either not in scordatura at all (so she was making the transposition herself and made errors in the process) or in scordatura but with many scordatura transposition errors which she did not

detect. The latter alternative seems to be the more likely as it is improbable that Bach would have given AMB the complex task of making the scordatura transposition herself.

The scordatura errors which occur in CBerlin and CVienna are so few that they can be attributed to normal human error in the copying process. CKellner is not in scordatura, but it contains numerous errors which seem to have arisen during the process of reverse transposition from scordatura back into 'normal' tuning. Finally, LCJSB contains one error which seems to be related to transposition from an original in scordatura.

The evidence from the scordatura errors is significant for deducing the likely relationships between the sources, and will be discussed in more detail in chapter 7.

Where there are different alternatives for the string to be used for certain notes in the scordatura sources, there sometimes seems to have been a deliberate choice for a lower string to obtain a softer effect, and at other times an equally deliberate choice for open strings (producing a brighter effect, but necessarily without vibrato) or lower positions of the left hand. This often implies a change of string rather than a move to a higher position on the same string. These choices are usually the same in the three sources in scordatura, so they were probably present in the original sources from which the surviving sources were derived, and therefore they probably originate from Bach himself. A modern cellist performing works of a later period might more often prefer to play a whole passage on one string by moving into the higher positions to maintain the same timbre, with as much vibrato as possible.

Many older editions of Bach's Cello Suites suggest fingerings which systematically use higher positions to avoid open strings, and may need to be re-thought by a performer who wishes to play more in keeping with Baroque performance practice. From the evidence found here, the fingering of each note has to be carefully considered according to the context of the passage, and the performer should not be afraid to use open strings and lower positions frequently where a bright effect would be appropriate.

4 Note pitches and rhythms

4.1 Introduction

Chapter 3 has discussed the differences between the sources for BWV 1011 which are due to the use of scordatura. The purpose of this chapter is to analyse the most significant remaining issues concerning note lengths and pitches which arise in the sources for BWV 1011, in order to identify conventions or habits followed by the copyists, and to derive further information which can be used to clarify the relationships between the sources.

A complete list and analysis of the differences between the notes in the sources for BWV 1011 is provided in tables in the Appendix, where there is also an indication of which variant readings in the sources may be superior to the others, as far as such an assessment can be made.

4.2 Conventions for use of accidentals

Apart from the scordatura issues, one of the more difficult problems in determining the notes which were intended by the copyists in the sources for BWV 1011 concerns the conventions or habits being followed for the indication of accidentals. Conventions in the 18th century were not always the same as they are today, and individual copyists tended to have their own habits. The only way to decipher their intentions is by consideration of harmonic and melodic aspects, with the additional complication that there are also likely to be a few slips where the copyists did not follow their normal habits. The following issues with conventions for using accidentals arise in the sources for BWV 1011:

- Accidentals before notes which are repeated at the same octave in the same bar.
- Use of b^\sharp in CKellner.
- Cancellation of accidentals.
- Unnecessary accidentals

Accidentals before notes repeated at the same octave in the same bar

The well-known convention today concerning accidentals before notes which are repeated at the same pitch in the same bar is only to give the accidental on the first occurrence of the note in the bar, leaving the performer to assume that the same accidental should be applied for later occurrences of the same note in the same bar, unless a different accidental is introduced. However, the sources for BWV 1011 do not follow this convention, and it is necessary to understand the conventions followed by each copyist in order to deduce whether or not an accidental was actually intended on repeated notes. For instance, if the first occurrence of a particular note in a particular bar has an accidental, but the second occurrence in the same bar has no accidental, what pitch should actually be played for the second note?

From an analysis of all of the cases where a note with an accidental is repeated in the same bar, the convention generally followed in all of the sources for BWV 1011 appears to be:

Convention

An accidental is given against every note which is not to be played according to the key signature of the movement, even if it repeats a note which occurs in the same octave with the same accidental earlier in the bar, except when the repeated note:

- a) is a pedal note, so it might be considered to be 'obvious' that the accidental is applicable to every recurrence of the note.
- b) is at the same pitch as, and immediately follows, the note with the accidental (whether or not there is a bar-line between), i.e. it is adjacent.

This will be referred to as the Convention in the remainder of this chapter.

The use of accidentals on repeated notes in the same bar in the Prelude is summarised in Table 1, where a Y indicates that the accidental has been repeated. A slight complication arises where the first accidental in the bar is simply a reminder of a return to the key signature of the piece after a different accidental in the previous bar, so these cases are not included in Table 1.

In CAMB, CBerlin and CVienna the Convention is generally followed throughout the Prelude (20-22 times out of a possible 29). CKellner follows the Convention the least often in the Prelude (only 15 times out of a possible 29). LCJSB is the only source which follows the Convention without any exceptions in the Prelude, providing an example of Bach's general care and consistency in his music, which is especially remarkable considering the generally messy state of this manuscript.

Exception a) mentioned in the Convention is illustrated below by bar 99 of the Prelude, where the a^{\sharp} (scord. b^{\sharp}) in the sources for cello is functioning as a pedal note, and therefore no natural has been added before the repeated occurrences of this note (the example only shows CAMB, but CBerlin and CVienna are the same in this respect). LCJSB has been slightly re-composed in bars 99 and 100 compared to the other sources, with basically the same notes but occurring in a different order, so that in bar 99 the a^{\sharp} (lute e^{\sharp}) is not so obviously functioning as a pedal in the first half of the bar and the natural sign had to be repeated on the second occurrence of the note. In the second half of the bar in LCJSB, the a^{\sharp} (lute e^{\sharp}) is functioning as a pedal, and therefore the natural sign has not been repeated before the last note of the bar. In bar 100, the flat sign is just a reminder of the return to the key given by the key signature, so it is not repeated in any of the sources when the same note occurs later in the bar.

BWV 1011/995 Prelude, Bars 99-101

CAMB



LCJSB



Exception b) mentioned in the Convention is illustrated below by bar 192 of the Prelude, where the natural is not repeated on the second $a\sharp$ (scord. $b\sharp$) in any of the sources because it is adjacent to the previous occurrence. In bar 193, the \sharp sign is repeated on both instances of the f in all of the sources because they are not adjacent. In bar 195, the first note has no accidental in LCJSB and CKellner, presumably because it is adjacent to the previous note at the same pitch, even though there is a bar-line between. However, in both of these sources a natural symbol is given explicitly in bar 195 before the second occurrence of the same note (the third note of the bar). In the other three sources (including CAMB shown here), the \natural (scord. \sharp) is given explicitly (but rather unclearly) before the first $b\sharp$ (scord. $c\sharp$) in bar 195, and the natural before the second b (scord. $c\sharp$) is left implicit.

BWV 1011/995 Prelude, Bars 192-195

CAMB



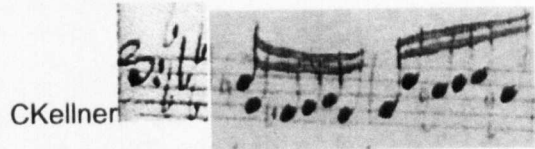
LCJSB



Thus, when the repeated note is adjacent in the same bar (which only occurs in the Prelude in bar 192), none of the sources repeats the accidental. When the repeated note is adjacent, but there is a bar-line between (as between bars 194 and 195), the accidental is not repeated in CKellner and LCJSB, but it is repeated in the other sources. Hence, in bar 195, CKellner and LCJSB follow the Convention and the other sources do not.

The Convention is also not strictly followed in CAMB, CBerlin and CVienna in bar 121 of the Prelude. The natural before the third note is repeated before the last note of the bar in CKellner and LCJSB, but not in the other sources. It is possible that the natural signs have been deliberately omitted in CAMB, CBerlin and CVienna because there is an $e\sharp$ just three notes earlier, and the first note of bar 122 is f , for which the $e\sharp$ makes a better leading note than $e\flat$, so it may have seemed 'obvious' that the last note of bar 121 should be $e\sharp$.

BWV 1011 Prelude, Bars 120-121



As can be seen from Table 1, about half of the cases in the Prelude where a repeated accidental seems to be missing from the sources for cello concern notes of pitch either $a\sharp$ or $A\sharp$ (a missing accidental is indicated in the table by the absence of a Y). Bar 25 is a typical example, where the final note of the bar is preceded by a natural sign in CAMB, CBerlin and LCJSB, but in CKellner and CVienna there is no natural before the final note, as shown in the extract below (for CVienna).

BWV 1011/995 Prelude, Bars 25-27


The image displays three staves of musical notation for the Prelude in C major, BWV 1011/995, specifically bars 25 through 27. The staves are labeled on the left as CAMB, CVienna, and LCJSB. Each staff shows the same musical passage but with variations in note heads, stems, and accidentals, illustrating differences in how the sources represent the same musical ideas. The notation is in treble clef with a key signature of one sharp (F#). The CAMB staff uses a different notation style for some notes compared to the other two. The CVienna staff shows some notes with natural signs. The LCJSB staff shows a different interpretation of the note heads and stems.

There are several possible reasons why natural signs may be missing before notes of pitch a or A in the sources for BWV 1011. For instance, the copyists may not have been careful enough to follow the Convention, or they may have been confused with a Dorian key signature (discussed below in section 4.3.3). Cases which concern pitch a (the normal pitch of the top string on a cello), as in bar 25 of the Prelude, could also be caused by confusion with the scordatura transposition, by which a note written as a is not flattened unless there is an explicit flat symbol, while a note written as A is automatically flattened by the key signature.


In any case, it seems likely that the note at the end of bar 25 of the Prelude was intended to be a[♮] (scord.b[♮], lute e[♮]'), because all of the sources indicate an a[♮] earlier in the bar, and this is the logical leading note to the b[♭] (scord.c, lute f') at the start of bar 26.

In bar 10 of the Prelude, only LCJSB indicates a[♮] (lute e[♮]') before the second semiquaver of the last crotchet beat, as illustrated below. None of the cello sources have this natural, so they imply a[♭] (scord.b[♭], lute e[♭]'), which could be just as valid as a[♮]. Eppstein follows LCJSB here, but there seems to be no particular reason not to follow the version of this bar as given in the cello sources.

BWV 1011/995 Prelude, Bar 10



LCJSB



CBerlin

In all of the movements after the Prelude, in all of the sources, there is only one further exception to the Convention. This occurs in bar 7 of Gavotte II in LCJSB, where Bach has omitted to write a natural sign in front of the last note of the bar, although he did insert a natural on the other two occurrences of this note in the same bar. The natural sign occurs three times in all of the other sources. As this exception is a single case in LCJSB, it is probably only due to an oversight by Bach, and may not have any particular significance.

BWV 1011/995 Gavotte II, Bar 7



CAMB



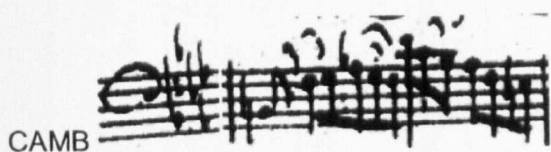
LCJSB

The surviving sources for the Violin Partita BWV 1006 demonstrate that the same Convention has generally been followed by Bach himself, AMB and Kellner as in the sources for BWV 1011, as will be discussed in section 4.6.

The rigour with which the Convention has sometimes been applied by the copyists (despite the occasional exceptions already discussed) is illustrated in bar 17 of Gavotte II, giving a striking demonstration of the importance of understanding the Convention when interpreting the sources. In CAMB, CBerlin and CVienna, the fourth note of this bar is a written $a\flat$, i.e. to be played as a real sounding $a\flat$ on the d string (noting that in scordatura, the $a\flat$ in the key signature applies only for the notes on the d string and below). The tenth note is a written a, which would also be played as $a\flat$ if the modern convention were followed that an accidental remains valid for all following notes of the same pitch in the same bar. However, the Convention has been rigorously applied in CAMB, CBerlin and CVienna, meaning that where there is no accidental then the key signature is to be followed, so in this case the tenth note should be played on the open top string, sounding g. Thus, the tenth note is not the same as the fourth note, even though they appear at first sight to be identical.

This interpretation is logical in order to form a descending scale fragment in the second half of the bar, and it is also confirmed by CKellner and LCJSB.

BWV 1011 Gavotte II, Bar 17



Special use of b^\sharp in CKellner

Whenever a written b^\flat or B^\flat is indicated in the scordatura sources (in any octave), CKellner always has a natural sign as we know it today, as in bar 147 of the Prelude shown below, so Kellner normally used this symbol when a natural was required. Similarly, in Kellner's copy of the other two Cello Suites where there is a B^\flat in the key signature (in D minor and E^\flat major respectively) he invariably indicates the normal natural sign as an accidental when b^\flat or B^\flat is to be played, in all octaves.

However, in CKellner a very particular and frequent use has been made of the note b^\sharp to indicate b^\flat above the stave, which does not occur in other octaves in CKellner, nor in the other sources, and can be a little confusing.

A typical example occurs in bar 146 of the Prelude, where there is a \sharp sign before the second semiquaver in bar 146 in all of the sources, making it look like b^\sharp ¹. In CAMB, CBerlin, CVienna and LCJSB, the second semiquaver in this bar is b^\flat (scord. c^\sharp , lute f^\sharp). It seems that Kellner was copying from an original source of BWV 1011 which was either in scordatura, and in his transposition to normal tuning he retained the \sharp signs without converting them to naturals, or already transposed by someone else back into normal tuning from scordatura, but with these notes already shown as b^\sharp .

BWV 1011 Prelude, Bars 146-147



In fact, in nearly all instances where CAMB, CBerlin and CVienna have b^\flat (scord. c^\sharp) then CKellner has b^\sharp . There are just two exceptions, where b^\flat occurs in CKellner above the stave, not b^\sharp , while the scordatura copies have a written c^\sharp .

¹ Kellner has used a 6-line stave both here and in other parts of this manuscript, which was a more common practice in the 17th century, but may be slightly confusing here.

The first exception occurs in bar 87 of the Prelude, where the third note in CKellner is shown as $b\sharp$ and the fifth note as $b\sharp$, while CAMB, CBerlin, CVienna and LCJSB all indicate $b\sharp$ for both notes (scord.c \sharp , lute f \sharp). There seems to be no particular reason for this difference, suggesting that either the original from which Kellner was copying had a natural symbol before the first b and a sharp symbol before the second b , which he just copied, or Kellner may have forgotten to apply his own convention of copying the accidentals as they appeared in the source which he was using, and changed the first one into $b\sharp$. The accidentals may of course have been unclear in the original source which he was using.

BWV 1011 Prelude, Bar 87



The second exception occurs in bar 26 of Gavotte I, where CBerlin and CVienna are identical to CAMB, but LCJSB has been re-composed so cannot be used for comparison. The seventh quaver of this bar is $b\sharp$ (scord.c \sharp) in all of the scordatura copies, but in CKellner the seventh quaver has no accidental, implying that it should be played as $b\flat$. In the next bar, CKellner has written two notes at pitch $b\sharp$, so in bar 26 either Kellner may have missed out the \sharp sign unintentionally before the seventh quaver, or this note may have been $b\flat$ (scord.c') in the original from which he was copying. The other differences between the sources in this bar are discussed in more detail in section 4.3.4 below.

BWV 1011 Gavotte I, Bar 26



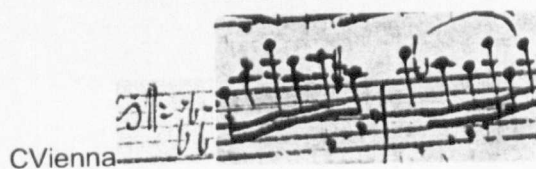
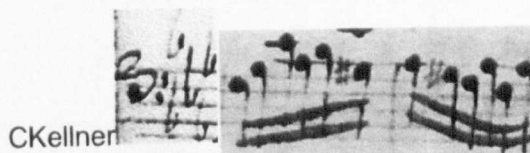
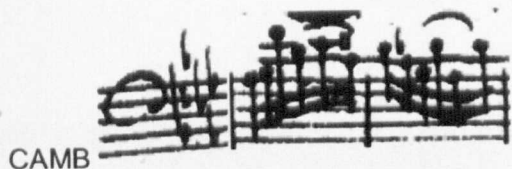
¹ Note that CKellner has a spurious bar line in bar 26 of Gavotte I.

Cancellation of accidentals

A notation to indicate the cancellation of accidentals only began to be required in the 15th century, when it became customary to place an accidental (initially only the flat) in a key signature at the start of a piece. Before that time, an accidental would have been placed before every note which needed it, so the absence of an accidental implied a natural. A cross symbol was the first notation used for raising a note by a semitone, thought to have been invented by Josquin des Près (d.1521), and evolving later into the \sharp symbol. It was used both for cancelling a flat in the key signature and for raising another note, giving a potential for uncertainty for the performer¹.

By the time of Bach and the full use of the chromatic scale, the convention to use the natural sign was becoming widespread, as demonstrated in the sources for BWV 1011. Where an accidental has been placed against a certain note in one bar, and the accidental is to be cancelled in a subsequent bar, then in most cases either no accidental at all is given in the subsequent bar, or a 'reminder' accidental is inserted to indicate a return to the key signature of the movement. Curiously, there is just one exception to this in all of the sources for BWV 1011, which occurs in bar 165 of the Prelude. All of the sources indicate $b\sharp$ (scord.c \sharp , lute f \sharp) at the end of bar 164, but in bar 165 the second quaver is indicated as $b\flat$ (scord.c \flat) in CAMB and CVienna, $B\sharp$ in CKellner (written as $b\sharp$, as discussed above in this section), and $b\flat$ (scord.c \flat , lute f \flat) in CBerlin and LCJSB.

BWV 1011/995 Prelude, Bars 164-165



¹ Grove, George. 1954. Volume 1. pp.24-26.

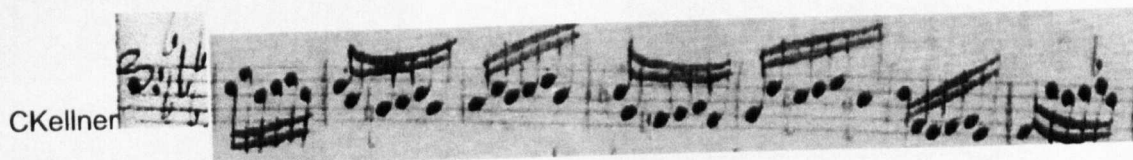
The notes written at pitch cb' in bar 165 in CAMB and CVienna are unlikely to have been literally intended to sound at pitch bbb , because the bar is otherwise clearly in C minor. Thus it seems that in CBerlin and LCJSB the convention has been applied which we have today to indicate a reminder for the cancellation of a previous sharp by a natural sign, while in CAMB and CVienna, the cancellation has been indicated by a flat sign. Both bb and bb' seem to be harmonically possible in these bars.

The fact that this occurs in both CAMB and CVienna suggests that the same accidentals may have been present in the original source(s) from which these copies were derived, and demonstrates that, although the natural sign may have been widely used, it was not yet universally applied.

Unnecessary accidentals

Adding to the potential for confusion, 'unnecessary' accidentals occur in all of the sources for BWV 1011. For instance, in bar 120 of the Prelude, all of the sources have a flat symbol before the first A, as in CKellner illustrated below, which is unnecessary because it is Ab anyway according to the key signature, and the previous occurrence of a note at the same pitch (in bar 113) was also flattened. This is a little confusing, because such an unnecessary flat can sometimes mean a double flat, as seems to be the case for instance in bar 80 of the Prelude of Bach's 4th Cello Suite, BWV 1010. However, it is unlikely that a double flat was intended here in bar 120, as this would not fit with the local key of F minor, nor with the sequence which is followed from bar 117 to 123, illustrated below.

BWV 1011, Prelude, Bars 117-123



4.3 Other differences in the pitch and length of the notes

4.3.1 Introduction

This section describes all of the remaining types of cases which have not been discussed in the previous sections (concerning conventions for accidentals and use of scordatura) where there are differences between the sources in the note pitches or lengths. The differences discussed here are summarised in Table 4, where they are classified as follows:

- er indisputable copying errors, such as a note which does not fit in the harmony of the passage, one or more notes missed out, or a bar line in the wrong place.
- dif the different readings could all be musically correct, so they may not be copying errors but could be faithful copies of revisions made in the original sources from which they were copied, or choices made by the copyists themselves. The term 'musically

correct' is defined in the Preface. Sometimes it is possible that these differences are actually copying errors which by good fortune have resulted in alternatives that are 'musically correct'. If more than one source has the same difference compared to the others, then dif is given against each differing copy, but if they are different in different ways, then they are marked with an extra ', such as dif' and dif''.

- l differences in note length and rhythm.
- m differences in accidentals which may be due to confusion with a Dorian key signature.
- t differences in the number of notes in a chord, while the main melody line is maintained, i.e. there is a difference in texture.

Often only a fine line can be drawn between an error and an alternative which seems to be undesirable (i.e. between the categories er and dif), and this is sometimes a subjective judgement, as will be discussed below.

In the Appendix, the following tables provide a more detailed analysis of the individual cases summarised in Table 4:

Table 6 summarises the number of occurrences of each category of error in the sources (excluding scordatura errors), indicated by 'er' in Table 4.

Table 7 describes and categorises all of the errors summarised in Table 6.

Table 8 summarises the cases of confusion with a Dorian key signature, indicated by 'm' in Table 4.

Table 9 describes all of the cases summarised in Table 8.

Table 10 summarises the number of occurrences of each category of difference which are neither errors nor confusion with a Dorian key signature in the sources, i.e. those indicated by 'dif', 'l' or 't' in Table 4.

Table 11 describes and categorises all of the differences summarised in Table 10.

In the three detailed tables (tables 7, 9 and 11), an x indicates where an alternative given in one source is in the minority compared to the other sources, and a y indicates the version given in the majority of the sources. In a few cases, there is more than one minority alternative given in the sources, in which case one minority alternative is indicated by x and the other by x'.

By assessing the alternative readings in the sources, a preference can sometimes be made for one alternative over another, in which case the preferred alternative x or y is shown highlighted in bold italic font in the table. The rationale for such choices is discussed in the next sections of this chapter. If there seems to be no particular reason to prefer one to another, then none of the alternatives are shown in bold italics. The preference is not always the alternative given by the majority of the sources, because several of the sources may have copied an undesirable alternative from an earlier original source, so the 'preferred alterna-

tive' has been chosen on purely musical grounds, such as forming a better sequence, or matching better the harmony or melody of the passage.

4.3.2 Copying errors (not associated with use of scordatura)

This section discusses the differences between the sources which can with some certainty be attributed to simple errors, indicated by 'er' in Table 4. Such errors may have arisen in the copying process, or they may already have been present in the original source from which the copies were produced. They are classified as real errors, and not just feasible alternatives, because they cause one or more of the following problems in the music:

- a) They are not compatible with the harmony of the passage,
- b) They upset what appears to be a logical sequence,
- c) They are unplayable as written,
- d) They lead to too few or too many beats in the bar.

Errors counted as 'missing accidentals' in Table 6 are those where the required accidental occurs neither on the note itself nor on any earlier occurrence of the same note at the same octave in the same bar, thus taking account possible variations in the conventions which the copyists may have followed about whether or not to repeat an accidental on the same note at the same octave in the bar. Errors counted as a 'difference of a second' are those where a note appears to be either too high or too low by an interval of a second, and similarly for those counted as a 'difference of a third'. The other types of error are self-explanatory.

All of the errors are described in Table 7, where an indication is given of which sources give the preferred reading ('x' or 'y' given in bold italic). The choices which have been made by Eppstein are also indicated in Table 7, and all are supported by the analysis given here.

Many of the copying errors could have arisen through a simple lack of concentration by the copyist, but some of them could be the result of mis-reading an unclear original source. For instance, the difference between sharps and naturals is sometimes unclear in Bach's handwriting (as can be seen for instance in his autograph manuscripts VJSB, LVJSB and LCJSB), a difference of a second could be the result of mis-reading a note which has not been drawn clearly on or between the lines of the stave, and a difference of a third could be the result of mis-counting the number of lines above or below the note on the stave.

CAMB has the greatest total quantity of errors by quite a large margin, having 19 errors in total, while the others have 6-8 errors each. The errors in CAMB are especially numerous in the last three movements, i.e. the two Gavottes and the Gigue, suggesting that fatigue or loss of concentration influenced either the copying or the production of the original source from which CAMB was derived.

Eight of the errors in CAMB concern note pitches, recorded in the row 'Sub-Total for Note Pitches' in Table 6. CKellner has significantly fewer errors in note pitches than the other sources (only four cases). Considering all of the sources, the most common types of error in the note pitches in Table 6 are missing accidentals and notes which are either too high or

too low by an interval of a second, and these errors occur in all of the sources for cello. Errors concerning parallel octaves or fifths only occur in LCJSB, mainly due to additional notes added to fill out the texture.

The most common errors which do not concern note pitches are missing ties, which occur in all of the sources for cello, and notes of the wrong length (e.g. semiquavers in place of quavers), which occur five times in CAMB but not in the other sources. CKellner has two cases of confusion with bar-lines, and CAMB is the only source which has a missing beat, extra (redundant) notes, and a whole duplicated bar.

In just one case, both CBerlin and CVienna have an extra accidental which does not appear in the other sources, occurring in the chord on the first beat in bar 7 of the Prelude. CAMB, CKellner and LCJSB have $a\flat$ (scord. $b\flat$, lute $e\flat$) as the upper note, forming a chord of F minor when combined with the f below and the following C , while CBerlin and CVienna have a written $b\sharp$, which is ambiguous in the scordatura writing because it could mean either a sounding $b\sharp$ played on the d string (analogous to bar 19 of the Allemande and bar 13 of the Courante), or a sounding $a\sharp$ on the top string. However, this passage is firmly in F minor from bar 5, so neither $a\sharp$ nor $b\sharp$ seems likely to be correct for the first beat of bar 7. Thus, CBerlin and CVienna have the same error here.

BWV 1011 Prelude, Bars 6-7



An explanation offered by Eppstein for this error in CBerlin and CVienna is that bar 7 of the Prelude may have occurred in the original source(s) used by the copyists at the start of a new line, and there was a natural sign in the key signature which was confused by the copyists with the first note of the bar¹. This is indeed possible, because any flats in the key signature on a and e do not apply above the staff with the scordatura tuning, and there might have been naturals in the key signature in the original source(s) to emphasise this, even though the only surviving source with a natural in the key signature is CBerlin. None of the other editions which have been studied offers any explanation. For instance, Leisinger follows Eppstein without explanation, even though his edition is otherwise based on CBerlin and CVienna.

¹ Eppstein, Hans. 1990. p.81.

There are three instances where the sources in scordatura (CAMB, CBerlin and CVienna) appear to have the same error, while CKellner and LCJSB seem to be correct. They are of special interest for evaluating the relative importance of the sources for BWV 1011, and will be discussed in the next three examples.

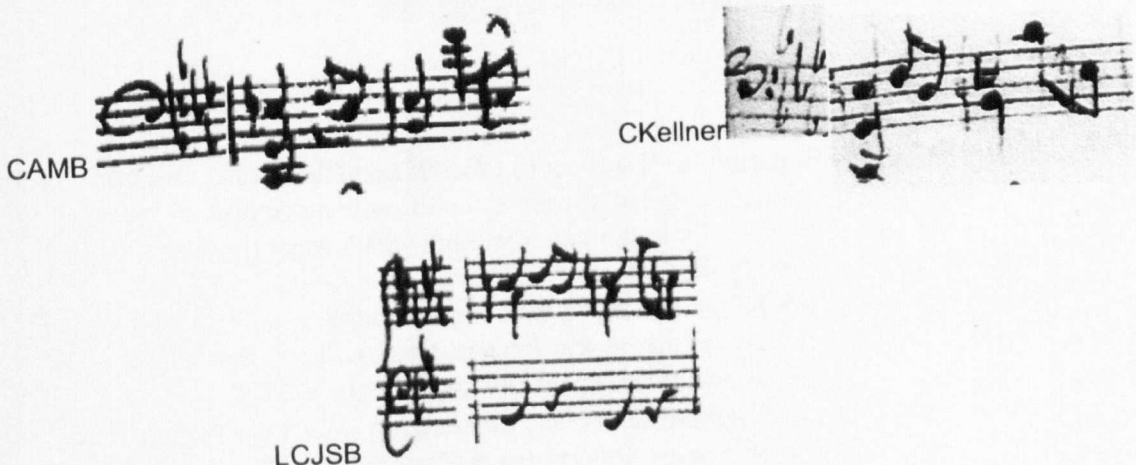
In bar 10 of the Prelude, only CKellner and LCJSB have a tie between the first two notes, which is surely required because the d would otherwise be repeated twice at the start of the bar. The missing tie in the scordatura sources is clearly nothing to do with the scordatura writing itself, but suggests that these sources were copied from an original source or sources which also did not have this tie, and the copyists failed to notice the error.

BWV 1011 Prelude, Bar 10



On the last crotchet beat of bar 13 in Gavotte I, illustrated below, CAMB, CBerlin and CVienna all have $e\flat$ (scord.f) as the top note, while CKellner and LCJSB have c' (lute g'). $e\flat$ would seem unlikely in bar 13 of Gavotte I, as there is an $e\sharp$ repeated three times in the middle voice in the same bar. Either there is one ledger line too many in CAMB, CBerlin and CVienna, or there might be a \sharp missing in front of the note, which would make it an $e\sharp$ (scord.f \sharp). An $e\sharp$ may be consistent with the harmony of the bar, but this second alternative seems undesirable as there are already so many notes of pitch $e\sharp$ in the bar. It seems that c' is more likely to be the correct note.

BWV 1011/995 Gavotte I, Bar 13



The first note in bar 10 of Gavotte II in CKellner and LCJSB is $B\sharp$ (lute $f\sharp$), but $B\flat$ in all of the sources in scordatura. In the otherwise identical bars 2 and 20 of this Gavotte, which is in

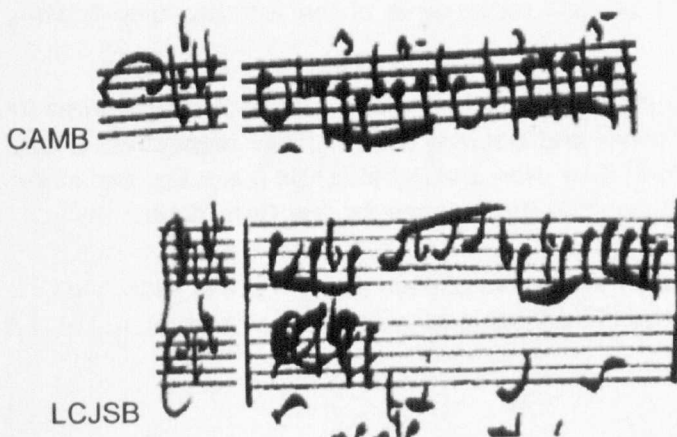
Rondo form, all of the sources have B \sharp as the first note, so B \sharp is likely to be correct for bar 10 also.

BWV 1011/995 Gavotte II, Bar 10



Bar 15 of Gavotte II illustrates another case where the same error is present in multiple sources. In this case, all of the sources for cello have e \flat with an explicit flat symbol as the second note of the bar (a useful reminder to play the flat because of the notes of pitch e \sharp in the bar before), the third note as d \sharp and the fifth note as d \flat . In LCJSB, the second note does not have a flat in front of it, but is in any case e \flat (lute b \flat) because of the key signature, while the third note is d \flat (lute a \flat) with an explicit flat symbol. It does seem logical that the third note should be flattened, so that the quavers 2-6 form a written-out turn around d \flat (lute a \flat), so LCJSB seems here to be the only correct source and all of the sources for cello seem to be in error.

BWV 1011/995 Gavotte II, Bar 15



The errors in the sources are significant for determining the relationships between the sources, as will be discussed in chapters 7 and 8.

4.3.3 Confusion with Dorian key signatures

By about 1680, the harmonic tonality with which we are familiar today was beginning to emerge from the earlier modes, especially in the music of composers such as Corelli, but by the time that Bach was composing his Cello Suites modal tonalities were still an important part of a composer's education and influenced the compositional process. One sign of this is that Bach and his contemporaries, such as Vivaldi, made frequent use of key signatures which are 'incomplete' for works which are in D, G, C or F minor. They were often written with one flat less in the key signature than we are accustomed today, as if they were in the Dorian mode, and the 'missing' flat on the sixth was inserted into the music as an accidental for every note where it applied. Vivaldi, for instance, indicated only one flat in the key signature of thirty-two of his concertos and sinfonias out of forty-six which are in G minor¹. Only late in the 18th Century did it become standard practice to use the Aeolian signature for all pieces in minor keys.²

A purely practical explanation for the persistence of Dorian key signatures into the 18th century may be that the sixth of the scale was sometimes deliberately raised to a natural in the music in both rising and falling passages, especially in passages in the dominant minor such as the subject's real answer in the fugal section of the Prelude of BWV 1011, so leaving the flat out of the key signature meant that a natural did not have to be inserted into the music in such cases. The flat symbol just had to be added as an accidental whenever the sixth was to be truly flattened.

Some support for this purely practical explanation is provided by Stauffer³, who has noted that in the 18th century sources which survive for Bach's Chromatic Fantasia and Fugue in D minor, the Dorian notation without any flat is consistently followed in the Fantasia section, with its rapidly changing harmony which frequently requires a B[♮], while a one-flat key signature is used in the Fugue section, where the B[♮] occurs only rarely. Stauffer goes on to note that the modern key signature begins to appear in works by Bach in the 1713-14 period (Cantatas 208 and 162 for example), and more frequently by 1720, in works such as the 2nd Partita for Unaccompanied Violin or the second movements of the first two Brandenburg Concertos.

All of the sources of Bach's Cello Suites in G and C major indicate Dorian key signatures for the second Gallanterie (Minuet II in G minor and Bourree II in C minor respectively), suggesting that the original sources from which they were derived also had these key signatures. However, Dorian key signatures do not occur in the sources for the Cello Suites in minor keys, with the sole exception of the Allemande in C Berlin. A possible explanation for this exception might have been that there were many notes of pitch a[♮] or A[♮] in the Allemande, so leaving the flat out of the key signature saved the trouble of writing in the naturals, but in fact

¹ Fully discussed in Brover-Lubovsky, Bella. 2008. p.xi and p.63.

² Discussed in Lester, Joel. 2003. pp.13-14.

³ Stauffer, George. 1989. p.174.

this is not the case – there are very few notes of pitch a^{\sharp} or A^{\sharp} in the Allemande, so there is no obvious explanation for the Dorian key signature of CBerlin in this movement.

Examples of Bach's slips with the Dorian key signature can be seen in his manuscript for the Violin Solos. In the Adagio of the G minor Sonata, he has written a one-flat key signature for eight of the systems, and a two-flat key signature for the other three systems. Furthermore, in the sixth system, which has two flats in the key signature, Bach has indicated a flat accidental in front of every e' and e'' . However, in the second system, which has only one flat in the key signature, Bach has omitted to insert a flat accidental for the e' on the third beat.

In the case of a work in C minor for cello such as BWV 1011, use of a Dorian key signature would mean that only B^{\flat} and E^{\flat} would appear in the key signature (possibly repeated at the higher octave), an a (scord. b^{\sharp}) or A without an accidental in the music would mean a^{\sharp} or A^{\sharp} , and any notes required to be at pitch a^{\flat} or A^{\flat} normally associated with the key of C minor would be indicated by flats inserted explicitly in the music wherever they were intended by the composer. In all of the sources for BWV 1011, the key signature actually includes the A^{\flat} , except in the Allemande of CBerlin, and in CAMB and CKellner there is also an a^{\flat} in the key signature (although it is meaningless in CAMB owing to the scordatura). However, in the music there are several cases where the natural accidental before an a or A in at least some of the sources has been omitted, although it seems likely that A^{\sharp} was intended. None of these ambiguities seem to be caused by confusion with the scordatura transposition, because that would concern notes which could be intended to be either a^{\flat} or g , whereas here the ambiguity is between a^{\sharp} and a^{\flat} .

The cases where these confusions with the Dorian key signature occur in the sources are indicated by an 'm' in Table 4, and they are summarized in Table 8 for ease of comparison. A detailed description of each case is provided in Table 9. As these cases often occur in the same place in more than one source, the confusion was probably also in the original sources from which the copies were derived. This suggests that the confusion may have started with Bach himself.

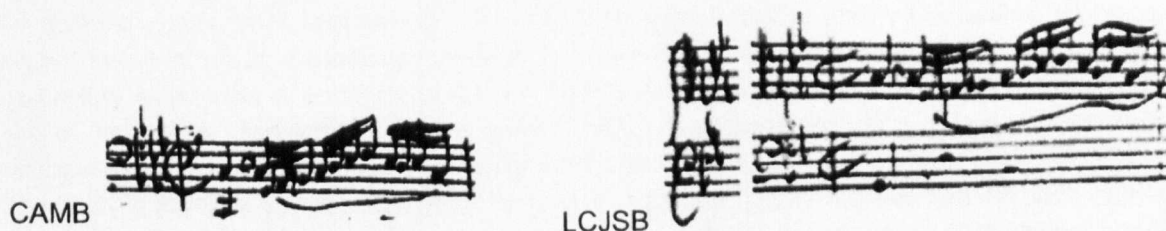
All of these cases concern notes which are indicated as a (scord. b , lute e') or A (lute e) without an accidental (implying a^{\flat} or A^{\flat} according to the key signature), but a^{\sharp} or A^{\sharp} (lute e or E) might also be possible or even preferable. In seven out of the ten cases, a natural sign would seem to be required, implying that the copyists or Bach himself forgot to insert the natural sign, presumably because of confusion with a Dorian key signature.

The source containing the most frequent ambiguities concerning the Dorian key signature is CKellner. In bar 1 of the Prelude, bars 4 and 15 of the Allemande and bar 11 of Gavotte I, all of the sources for cello have the same ambiguity, while only LCJSB has an explicit natural. In both cases where LCJSB has an ambiguity, the other sources have an explicit natural. In CKellner there are naturals before certain notes at pitch a or A , for instance in bars 21, 24, 60 and 70 of the Prelude, so it seems that when Kellner omitted the natural, this was either because the source from which he was copying also had no natural, or it was just carelessness.

An indication of how many instances in each source seem to be the best alternatives is given at the end of Table 9. It is probably not surprising that LCJSB provides the greatest number of preferred alternatives (6), as the transcription process probably gave Bach the opportunity to correct some errors in the version for cello from which he was transcribing.

A good example where $A\flat$ seems preferable occurs in the very first bar of the Prelude, illustrated below, where the third semiquaver of the second crotchet beat is $A\flat$ in all of the sources for cello, implying a fragment of the scale of C harmonic minor, but it is $A\sharp$ (lute $e\sharp$) in LCJSB, implying a fragment of the scale of C melodic minor (lute G melodic minor). Both alternatives are harmonically and melodically possible here, and Bach may have decided to make a modification in LCJSB simply because his taste had changed by the time that he wrote it (probably some ten years after the version for cello). However, in bar 10, the same motif is repeated at an interval of one fifth higher and all of the sources have $e\sharp$ and not $e\flat$ (lute $b\sharp$ and $b\flat$), which seems to imply that Bach really did intend $A\sharp$ (lute $e\sharp$) in bar 1. Perhaps Bach thought that his cello performers would find it obvious to play $A\sharp$ in bar 1 of BWV 1011, but decided to make it completely clear for lutenists in BWV 995.

BWV 1011/995 Prelude, Bar 1



An example where $A\flat$ seems to be preferable occurs in bar 4 of the Allemande, illustrated below, where none of the sources for cello has an accidental before the second note, implying that it is indeed $A\flat$, but in LCJSB there is a sign which may be a natural in front of it, and a natural is given in LTAB. Hulshoff suggests that $A\sharp$ (lute $e\sharp$) is better, without giving any particular reason¹, and Wenzinger indicates the natural in brackets. Efrati suggest that this is an example of Bach's occasional preference in descending passages for the notes of the ascending melodic minor scale². Eppstein indicates $A\sharp$ here, but continuity is surely important with the $A\flat$ in bar 3 and with the $a\flat$ later in bar 4, so $A\flat$ may be preferred.

¹ Hulshoff, Gerrit. 1944. p.59.

² Efrati, Richard. 1979. p.233.

BWV 1011/995 Allemande, Bars 3- 4



A case of confusion with the Dorian key signature in which both a^{\sharp} and a^{\flat} seem to be equally good occurs on the second semiquaver of bar 218 of the Prelude, which is given with an explicit natural sign in all of the sources for cello, but without a natural in LCJSB, implying a^{\flat} (lute e^{\flat}). Eppstein indicates a^{\sharp} , but there seems to be no particular musical reason for this choice. Bach may have omitted the natural sign in LCJSB due to carelessness, or he may have made a deliberate change.

BWV 1011/995 Prelude, Bars 218-219



4.3.4 Differences which are not due to copying errors, confusion with Dorian key signatures, scordatura or conventions for accidentals

The differences discussed in this section are those which are indicated by 'dif', 'l' or 't' in Table 4. They are all 'musically correct' as defined in the Preface. Some may have arisen from differences between the original sources which were accurately copied, some may have arisen from copying errors which by chance produced a variance which was musically correct, and some may have been introduced as 'corrections' on the initiative of the copyists.

An overview of these differences is provided in Table 10, and in Table 11 there is a detailed description of each case. Important new categories of differences introduced here which were not found amongst the copying errors are:

rhythm, where there is a difference in note length while the note pitches remain the same.

texture, where there is a difference in the number of voices in a bar or the arrangement of the notes in a chord.

substantial differences, where there is a change in a bar which affects more than one note in the melody line in the bar, and/or involves the addition of one or more notes to the melody.

Only one of the textural differences which occur in LCJSB is mentioned in Table 10 because it is the only one which is relevant to the textural differences in the sources for cello. There are many other textural differences in LCJSB, which will be discussed in section 4.5.

Observations which can be made about these differences are:

- a) The most numerous differences occur in LCJSB, but CKellner also has many differences.
- b) Amongst the sources for cello, the most common types of difference are an interval of a second and textural differences.
- c) Substantial differences mostly occur in LCJSB, with just a few in CKellner.
- d) Rhythmic differences mostly occur in LCJSB.

The last line of Table 11 shows the number of differences in bold font for each source, which means the number of times that the alternative offered by the source is preferred compared to other alternatives offered by the other sources. CKellner offers considerably fewer of the preferred alternatives than the other sources (only 13 in total), CAMB, CBerlin and CVienna all offer between 21 and 24 of the recommended alternatives, and LCJSB has by far the most (31).

In many of the examples discussed in this section, CKellner has different notes compared to the other sources. As Kellner is not known to have played a stringed instrument, it seems highly unlikely that he would have invented different notes, added notes, or re-arranged chords, so his copy probably transmits the contents of the original source from which it was derived. This is an important consideration for the relationships between the sources, and will be discussed in more detail in chapters 7 and 8

An indication of the alternatives which have been chosen by Eppstein is also given in Table 11. In a few cases, Eppstein's choices are not the same as those preferred here, as will be discussed in detail below.

Difference of a second, a third or more

All of the sources have some notes which differ from the other sources by an interval of a second (discounting scordatura issues), and this occurs most frequently in CKellner.

There are two cases of this type where the readings in CKellner seem to be superior to the other sources for cello, and they are especially significant because they also seem to be superior to the alternative chosen by Eppstein. The first of these cases occurs in bar 193 of the Prelude, where the three copies in scordatura all give the third semiquaver as G, while in CKellner and LCJSB it is A \sharp (lute e \sharp).

If this note is A \sharp , then bar 193 would contain the notes of a diminished seventh on F \sharp , leading from the c' at the end of bar 192 into the c' at the start of bar 194. The A \sharp also forms a logical rising bass line which starts from the F \sharp in bar 188 and passes through the notes of pitch G in bars 189 and 191.

If this note is G, the notes of bar 193 do not form a common chord. However, it could be considered to be a pedal following the notes of pitch G in bars 189 and 191.

BWV 1011/995 Prelude, Bars 188-194

The image displays three staves of musical notation for the Prelude in E major, BWV 1011/995, specifically bars 188 through 194. The top staff is labeled 'CAMB' and shows a complex passage with many beamed notes. The middle section, labeled 'CKellner', consists of two smaller images: the left one shows a detail of the notation for bar 193, and the right one shows a detail of the notation for bar 194, both with a circled note. The bottom staff is labeled 'LCJSB' and shows the full notation for bars 188-194, with a circled note in bar 193. The notation is in treble clef with a key signature of one sharp (F#).

Eppstein indicates this note as G, but Leisinger indicates A \sharp . Schwemer and Woodfull-Harris indicate A \sharp as first choice, with G given as an alternative (and with an incorrect indication that it is A \sharp in CAMB). The views of scholars are clearly divided concerning this note,

but A \sharp seems to be the more logical choice in view of the overall rising line of the music from bar 188.

In bar 9 of Gavotte I, the opening chord of the bar is c, g, a \sharp (scord.b \sharp) (lute g, d', e \sharp ') in all of the sources except in CKellner, which has c, f, a \sharp . The version of this chord given by CKellner forms an F major triad in second inversion, while the chord in the other sources forms a 6/5 chord on the subdominant in the local context of G minor. Either of these chords could be logical from an harmonic point of view, but the chord in CKellner seems to be superior because it ensures a smooth descending line for the middle voice from the g at the end of the previous bar, going down to the e \flat on the third crotchet beat of bar 9. The chord in CKellner is also more 'cellistic', because it can be played with the left hand fingers in a normal position (whether or not it is played on a cello in scordatura tuning), while the chord as given in the other sources requires an awkward contortion of the cellist's left hand. Epstein has chosen the version given by the majority of the sources, namely a chord containing g.

BWV 1011 Gavotte I, Bars 8-10

The image displays two staves of musical notation for the first two measures of Gavotte I, BWV 1011. The top staff is labeled 'CKellner' and the bottom staff is labeled 'CBerlin'. Both staves are in G minor (one sharp, F#) and 3/4 time. The notation shows the first two measures of the piece, with the CKellner version showing a different harmonic treatment in the first measure compared to the CBerlin version.

In a recent analysis of Bach's Cello Suites, Winold has also mentioned that improvements to CAMB can be derived from CKellner, so he may have noticed the same cases as those mentioned above¹.

A particular sub-category of the differences of a second which is only found in three bars of CKellner occurs where a quaver after a dotted crotchet is given at the same pitch as the dotted crotchet, while it is given a second higher or lower in all of the other sources. Two of these cases are almost identical, occurring in the last minim beats of bar 17 of the Allemande and of bar 11 of the Courante (only the Allemande example is shown below), where all of the sources indicate an a \flat (scord.b \flat , lute e \flat ') dotted crotchet descending to a g quaver (scord.a, lute d'), except CKellner where the quaver is a \flat .

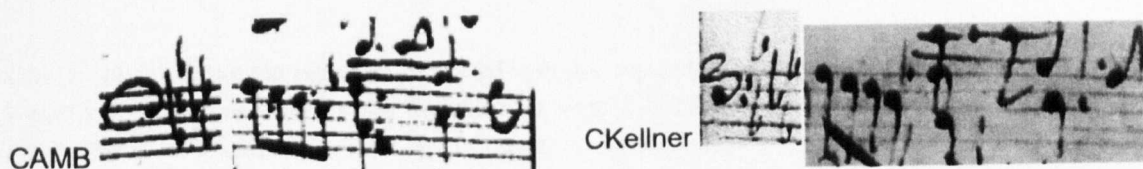
¹ Winold, Arnold. 2007. pp.90-91.

BWV 1011 Allemande, Bar 17



The third example of this sub-category occurs in bar 18 of the Courante. In all of the sources except CKellner the second beat of the bar starts with an $e\flat'$ (scord.f', lute $b\flat'$) dotted crotchet in the top voice, rising to a quaver f' (scord.g', lute c"). In CKellner the quaver is an $e\flat'$. On the last minim beat of the bar, there is again a dotted crotchet followed by a quaver, but here CKellner does have the same as the other sources, showing that CKellner is not consistently different when this motif occurs.

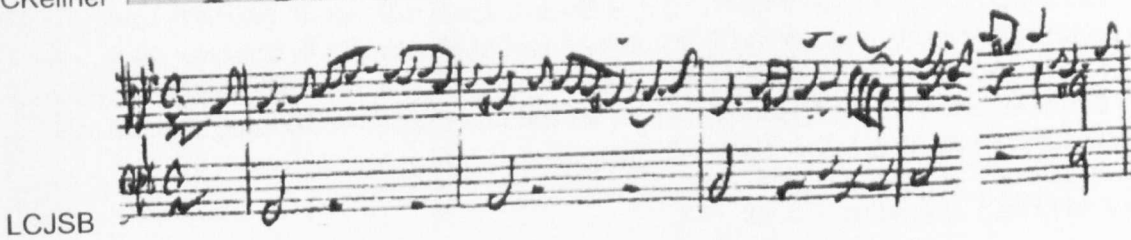
BWV 1011/995 Courante, Bar 18



CKellner contains two cases where the indicated notes differ by interval of a third from those of the other sources. All of the other sources have one difference of a third, except CBerlin which has none. Most of these cases seem to be isolated to just one source, possibly due to the copyist mis-reading the number of lines of the stave above or below a note. The only case which is not isolated to one source occurs in bar 3 of the Courante, where the bass note on the first beat in all of the scordatura versions is C, while CKellner and LCJSB have $E\flat$ (lute $B\flat$), shown a little unclearly in CKellner. $E\flat$ in the bass of the chord helps to form a clearly rising bass line from the C and D in the previous bars and on to the F and G in bar 4 (all a fifth higher in LCJSB, where the rising bass line is especially easy to see). Hulshoff supports this view, and Eppstein gives $E\flat$ here, in agreement with CKellner and LCJSB.¹

¹ Hulshoff, Gerrit. 1944. p.122.

BWV 1011/995 Courante, Bars 1-4



There are only three examples of readings varying by more than an interval of a third, all of which occur in the Prelude in LCJSB. These differences are almost certainly not due to copying errors, but are deliberate changes introduced by Bach in LCJSB to improve the harmony or the voice leading. In bars 73 and 75 of the Prelude, the first note of each bar has been lowered by a fourth in LCJSB compared to the sources for cello. This makes a stronger distinction between the upper and middle voices, but obscures the references to the main motif of the fugue which are clearer in each bar in the sources for cello (in each case the motif of the fugue is given by the first and third semiquavers of the bar before, leading to the first semiquaver of bars 73 and 75). On balance, these changes do not seem to be particularly beneficial.

BWV 1011/995 Prelude, Bars 72-75



The third example of a difference of more than a third occurs in bar 170 of the Prelude, where the first note is g (scord.a) in all of the sources for cello, but d (lute a) together with f# in the bass (lute c#) in LCJSB. The g may seem logical after the f# at the start of the previous bar, but Efrati suggests that LCJSB is harmonically stronger because the tonic G of this section of the Prelude is reached one bar too early in the sources for cello, i.e. in bar 170, while it is only reached at the cadence in bar 171 in LCJSB, where there is a G₁ (lute D) in the bass¹. The change made in LCJSB does indeed seem to have been beneficial in this case.

BWV 1011/995 Prelude, Bars 167-171



Substantial differences

Among the four sources for cello, CKellner disagrees with the others substantially in four places, meaning that the melody lines in CKellner have more than one different note in four bars compared to the other sources. CAMB, CBerlin and CVienna do not have more than one different note in any bar when compared to each other. Many substantial differences have also been introduced into LCJSB, but they mostly relate to lute technique and the different capabilities of the lute compared to the cello, and they will be discussed in section 4.5 below.

The first example of a substantial difference in CKellner occurs in bars 54-55 of the Prelude, where the melody lines are swapped around compared to the other sources, although the bass line is the same in all of the sources. Someone seems to have noticed this and attempted to 'correct' it by inserting what appears to be a '2' above and then '1' below these bars respectively, and certainly some change is needed for performance because it is not possible to play the third semiquaver of bar 54 as shown in CKellner with the G crotchet below it because they would fall on the same string. The fact that the bass has not been

¹ Efrati, Richard. 1979. p.112.

swapped indicates that these bars may have been like this in the original source from which CKellner was copied, because a copying error involving swapping the upper voice and not the lower voice would seem to be highly unlikely. Epstein follows the version of these bars as given in CAMB, CBerlin, CVienna and LCJSB.

BWV 1011/995 Prelude, Bars 54-55



In bar 77 of the Prelude in CKellner, the last three notes are a third higher than in the other sources. As the first two semiquavers of the next bar are $e\flat$ - f , then the option given by CKellner is probably inferior because it already includes the same notes at the end of bar 77. The option given in the other sources makes a better preparation for the next bar.

BWV 1011/995 Prelude, Bars 76-79



In the above examples, it may be interesting to note that CKellner has the same melody line in bars 54 and 77, although this may not have any significance concerning the differences compared to the other sources.

Finally, CKellner has several significant differences in bar 14 of the Allemande compared to the other sources. On the second crotchet beat, CKellner has two quavers, whereas the others have a dotted quaver and a semiquaver. Furthermore, the last note of the second beat and the whole of the third and fourth beats have different notes and a different rhythm in CKellner. This does not seem to be a confusion arising from the scordatura, because the notes in CKellner form an equally good preparation for the dominant seventh on the first chord of bar 15, so it is more likely to be a difference inherited from different original sources available to the copyists. Again, Eppstein follows the notes given in CAMB, CBerlin, CVienna and LCJSB.

BWV 1011 Allemande, Bars 14-15



Different accidentals

The most numerous differences in the accidentals which do not seem to be due to errors or confusion with the 'Dorian key signature' occur in CKellner, which has three cases each of accidentals which are different or missing compared to the other sources, see Table 10.

In most cases of differing accidentals, the alternative given by the majority of the sources is musically superior. Only in bar 173 of the Prelude and bar 26 of Gavotte I do the alternatives given by CKellner alone seem to be as good as those given by the other sources. In this bar, the fourth note is $a\sharp$ in CKellner, but $a\flat$ (scord. $b\flat$, lute $e\flat'$) in all of the other sources. As all of the sources give their respective accidentals explicitly, this does not seem to be caused by confusion with the key signature. An $a\flat$ emphasises the minor mood of the passage, while $a\sharp$ makes a smoother descent from the previous $b\sharp$ to the following g . There seems to be no particular reason to prefer either alternative, but Eppstein follows the alternative given by CAMB, CBerlin, CVienna and LCJSB.

BWV 1011 Prelude, Bars 172-173



Bar 26 of Gavotte I was already mentioned in the context of the conventions for use of accidentals, but it also illustrates some other issues with accidentals. CKellner appears to have $b\flat$ as the seventh quaver in this bar, while the other sources for cello have $b\sharp$ (scord. $c\sharp'$). In the next bar, Kellner has written two notes as $b\sharp$, so in bar 26 he may simply have omitted the \sharp accidental unintentionally before the seventh quaver. However, the first quaver of bar 26 is $b\flat$ in all of the sources, and $b\flat$ could make musical sense for the seventh quaver in CKellner (only in this source) also, because the crotchets on pitch f in the bass line suggest the key of F major for the whole bar, delaying the modulation to G major until the next bar, while in the other sources there is already a modulation to G major in the second half of the bar.

LCJSB cannot resolve this inconsistency because it has been re-composed in the second half of bar 26, although it does end with $b\sharp$ (lute $f\sharp'$). The re-composition may indicate that Bach was not comfortable with this bar and decided to change it in LCJSB so that the modulation would occur only on the last note of the bar.

BWV 1011/995 Gavotte I, Bar 26



Rhythm and note lengths

The rhythmic and note length differences between the sources for BWV 1011 will be subdivided here into issues with up-beats, dotted notes and other rhythmic issues. They are summarised in Table 4 and discussed in more detail in Table 11, where they are all indicated as differences in 'note length'.

Although the dance movements in BWV 1011 were unlikely to have been composed in order to be danced, the performer was most probably expected to take note of the title of each movement and follow the normal stylistic features of the corresponding dance, such as the tempo and the accentuation. Where the dance starts with one or more upbeats, the dancers would poise themselves by performing a *plié* (bend of the knees), and the dance would actually begin on the first beat of the first whole bar with an *élevé* (rise onto the balls of the feet) or one of several types of springs².

In BWV 1011, there are upbeats to the Fugue section of the Prelude (which is a kind of Passepiéd), the Allemande, the Courante, both Gavottes and the Gigue. In all of the sources, the Gavottes have the two crotchet upbeats which are characteristic of this type of dance, and the Gigue has a single quaver upbeat to each of the two sections of the dance, compensated by having one less quaver in the last bar of each section.

However, in the sources for the Fugue, the Allemande and the Courante, there are some differences between the lengths of the upbeats and/or the lengths of the final notes which demonstrate that the copyists followed slightly different conventions to represent the upbeats. This can be seen by reference to the first bars, the last bars, and the bars just before and

¹ In bar 26 of CKellner, a redundant bar-line has been drawn in the middle of the bar.

² Little, Meredith and Jenne, Natalie. 1991. pp.3-21.

just after the double bars in the movements having two sections. Although the upbeats do not always add up to a whole bar when considered with the last bar of each section, this is not counted as an error here because it seems to have been more a matter of convention – mathematical precision in the notation may not have been considered to be important on this point.

The last quaver of bar 27 of the Prelude forms an upbeat to the Fugue, and is written as a quaver in all of the sources. However, there is a slight difference between the sources in the last bar of the Fugue, where all of them indicate a chord of a dotted crotchet forming a complete bar, except CKellner which only has a crotchet. CKellner is thus both correct in compensating the initial upbeat quaver of the Fugue by subtracting it from the last bar, and incorrect because the Prelude as a whole is too short by one quaver.

The upbeat to bar 1 of the Allemande is shown as a semiquaver in all of the sources except CKellner, which has a quaver. Before the double bar in bar 18, all of the sources have a dotted crotchet (except in CKellner where the dot is missing), and after the double bar all of the sources have a quaver upbeat except LCJSB which again has a semiquaver. All of the sources end the movement in bar 36 with a dotted crotchet, except CBerlin where the dots are missing. The semiquaver upbeats which are given in all of the sources except CKellner are not mathematically correct when considered with the end of each half of the movement.

In the Courante, the sources agree with each other concerning the length of the upbeat at the start of the movement, the lengths of the notes just before and after the double bar in bar 12, and the length of the final chord (a minim). However, the upbeat quaver at the start of each section of the Courante is not long enough to make a complete bar when added to the last bar of the section, except in CVienna where a quaver rest has been added at the end of bar 24. To be mathematically correct, the last minim of each section should be lengthened by a quaver. In LTAB, a quaver rest has been added at the end of the first section just before the double bar, so that there are the correct total number of beats, but not at the end of the whole movement (nor in the equivalent places in the Allemande).

In both the Allemande and the Courante, the general intention seems to be that the upbeat should be fairly short, because all of the sources except CKellner have a semiquaver upbeat for the first bar of the Allemande and a quaver upbeat to both sections of the Courante. The problem for Bach and his copyists when indicating upbeats was that the convention of notating a double dot was not widespread at the time when Bach wrote his Cello Suites, so they had no simple notation for indicating a double dotted crotchet at the end of each section of the Allemande to match a semiquaver upbeat, or a double dotted minim at the end of each section of the Courante to match a quaver upbeat. They could have added a tied note at the end, or a rest in the first section of the Courante in LTAB, but this would probably have seemed to be unnecessarily fussy.

The most significant issue which arises with the rhythm in the sources for BWV 1011 concerns dotted notes. The length which should be given in performance for dotted notes in movements in the French Overture style (such as the Prelude and the Allemande in BWV 1011) is a very significant issue because of its wide potential application for the performance of Baroque music, and the considerable debate which has taken place about it in the literature during the 20th century. Although this is certainly not a new topic of research, the debate until now has mostly centred around the evidence from other works, as will be indicated

below. However, the sources for BWV 1011 also provide information on this topic which is worth consideration.

In the Prelude and the Allemande, all of the sources contain some short demisemiquaver *tirate* figures which give these movements a sharply dotted character. In bar 25 of the Allemande, for instance, the rhythm of the first crotchet beat requires two quick demisemiquavers in all of the sources, seemingly chosen to continue the rhythm established in the second half of bar 24, with each crotchet beat starting with a dotted quaver. The rhythm of the second beat of bar 25 is different in some of the sources, but this is not important for the discussion of dotting. Within the third beat, there are also demisemiquavers in all of the sources, which further emphasise the dotted style because the whole beat could have been composed with four semiquavers descending smoothly from the g (scord.a, lute d'). CKellner indicates a dotted quaver g followed by four demisemiquavers starting on g in this third beat, while in all of the other sources there is a quaver g (without dot) tied to the first demisemiquaver. Kellner seems to have misinterpreted this beat and written the tie as a dot, perhaps having sharper dotting in mind, and not noticing (or not caring) that the notes did not add up to a whole crotchet for the third beat in his copy.

BWV 1011/995 Allemande, Bars 24-26

The image displays three staves of musical notation for the Allemande from BWV 1011/995, specifically bars 24 through 26. The staves are labeled on the left as CAMB, CKellner, and LCJSB. Each staff shows the same musical passage but with different rhythmic interpretations. The CAMB and LCJSB versions show a dotted quaver followed by two demisemiquavers in the third beat, while the CKellner version shows a dotted quaver followed by four demisemiquavers in the third beat. The notation includes various note values, rests, and bar lines, with some sources showing different clefs and key signatures.

In bar 26 of the Allemande, there are again demisemiquavers, this time within the first beat and tied to the first quaver, similar to the mathematically correct version of the third beat of bar 25 as given in CAMB. As in bar 25, these demisemiquavers could have been written as four semiquavers if a less sharply dotted style had been intended.

In bars 20 and 21 of the Allemande, all of the sources except CKellner provide further examples of a sharply dotted style. In both bars, CKellner (actually missing a bar-line between them) has a beat containing a quaver followed by two semiquavers, while the other sources have a dotted quaver and two demi-semiquavers (the dot is missing in the third crotchet beat

of bar 21 in CAMB, but is present in CBerlin and CVienna). Similarly, in bar 11 of the Courante (not illustrated here), the last two notes of the second minim beat are quavers in CKellner and LCJSB, but a dotted quaver and a semiquaver in all of the other sources.

BWV 1011 Allemande, Bars 20-21



It is in LCJSB, however, that the most significant sharper dotting occurs. This can be seen most clearly in the Allemande, where LCJSB has sharper dotting which is not in any of the sources for cello in bars 1, 2, 6, 7, 19, 22, 23, 27, and 29. In each case, the sources for cello have a crotchet tied to a semiquaver, followed by three more semiquavers, while LCJSB has a crotchet tied to a dotted quaver followed by three demisemiquavers. The crotchet tied to a dotted quaver is effectively the same length as a double-dotted crotchet. Bar 1 of the Allemande is a typical example, illustrated below.

BWV 1011/995 Allemande, Bar 1



The intention of Bach in LCJSB seems to have been that the short notes after the tie should be compressed, and the tie thus extended compared to the version of this bar given in the sources for cello, even though the notes no longer add up precisely to a whole beat. It can be deduced from this that in the period when this manuscript was written, mathematical correctness within the beat in the notation was probably not considered to be very important, and the length of the dot was not so strictly interpreted as we would expect today. The main beat was probably expected to remain constant, but some flexibility may have been left to the performer to decide on the speed of the internal *tirate* figures within the beat. The imprecise notation may also have had the virtue that it emphasized the ornamental quality of the figures.

Although most bars with a similar figure in the Allemande of LCJSB have similar rhythmical changes to bar 1, bar 24 does not. It has exactly the same rhythm in the sources for cello as bar 1, but sharper dotting has not been introduced. As this is the only exception, it was probably a simple oversight by Bach.

In the Prelude, sharper dotting has also been introduced in bars 7 and 9 of LCJSB compared to the sources for cello, although not so clearly as in the Allemande. All of the sources for cello have note values which add up precisely to the corresponding beats in bar 7, but LCJSB has a dotted quaver and three demi-semiquavers on the third crotchet beat, which add up to more than a crotchet and should therefore presumably be played rather quickly to maintain the overall pulse. Similarly, in bar 9, the first chord as given by the sources for cello is a crotchet tied over to a semiquaver, followed by 2 demi-semiquavers and 2 semiquavers, but in LCJSB it is a dotted crotchet, followed by four rather unclear demi-semiquavers.

BWV 1011/995 Prelude, Bars 7-9



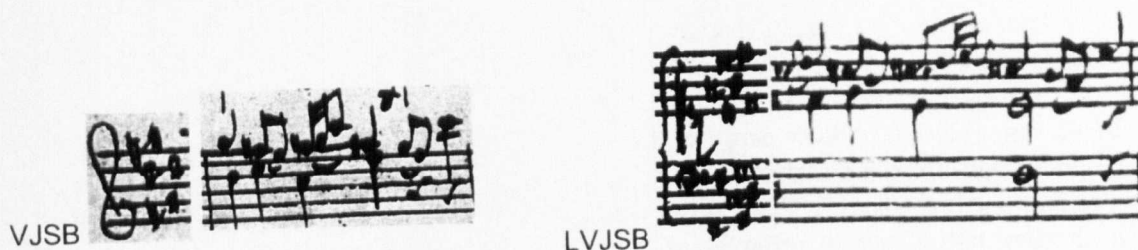
Thus, there are two cases in the Prelude and nine cases in the Allemande where sharper dotting has been introduced in LCJSB compared to the sources for cello. In each case, the change concerns the shortening of a small group of semiquavers into demisemiquavers, and the consequent lengthening of the previous dotted note.

There are also some cases in LCJSB where sharper dotting has not been introduced, although it might perhaps have been expected. For instance, LCJSB does not have sharper dotting in any of the figures consisting of a dotted crotchet followed by a quaver or of a dotted quaver followed by a semiquaver. Similarly, no rhythmical change has been introduced in the Courante, although it is also in a French style with many figures which might have been candidates for increased dotting, such as the rising quavers in the first minim beat of bar 11, or the descending semiquavers in the first minim beat of bar 12 which could have been shortened to semiquavers or demisemiquavers respectively if Bach had so wished.

It might be expected that Bach would have made similar rhythmical changes when transcribing BWV 1006 for lute (creating LVJSB), but in fact the only rhythmical change seems to be on the third crotchet beat of bar 8 of the Loure, illustrated below, where slightly sharper dotting has been introduced into LCJSB. This suggests that by the time that LVJSB was produced (1735 or later), Bach no longer preferred sharp dotting for the lute, and was more in

favour of a performance where the dotted notes would be played with a length more or less as written.

BWV 1006/1006a Loure, Bar 8



The use of sharply dotted rhythms during the 18th century is discussed in several well-known books written shortly after Bach's death, from which some passages are quoted here:

Johann Quantz¹:

The dotted note is to be played with emphasis, and the bow is detached during the dot...if three or more semiquavers follow a dot or rest,...they are executed at the extreme end of the time allotted to them, and with the greatest possible speed, as is frequently the case in overtures, entrees and furies. Each of these quick notes must receive its separate bow-stroke, and slurring is rarely used.

C.P.E.Bach²:

Short notes which follow dotted ones are always shorter in execution than their notated value.

Leopold Mozart³:

The dot should in fact be held at all times somewhat longer than its value.

The passages quoted above are unanimous in indicating that dotted notes should generally be played longer than their notated values, and the notes following them correspondingly shorter. However, all of these treatises were produced in the 1750's, shortly after Bach's death and at a time when musical tastes were changing rapidly, so their comments are not necessarily valid for the period some thirty years earlier when CKellner, CAMB and LCJSB were produced.

More recently, the concept of sharper dotting has been discussed at length by scholars such as Grützbach¹. Grützbach interpreted the comments of the late 18th century writers quoted

¹ Quantz, Johann. 1752. pp.290-291.

² Bach, Carl Philipp Emanuel.1752. p.157.

³ Mozart, Leopold. 1755. p.41.

above as meaning that almost all dotted notes should be more sharply dotted in Baroque music, providing examples from the 4th Cello Suite (and using an erroneous quotation from LCJSB to support his argument). Neumann has criticized this view, but Neumann's main points seem to be based on the practical difficulties of synchronising sharper dotting in a large ensemble which is playing a passage in the same rhythm, and on the need to synchronise several voices which have slightly different rhythms including short notes which should coincide². Neither of these arguments would apply in works with mostly just one voice sounding at a time, such as Bach's Cello Suites.

By use of an example from the overture to Händel's *Partenope*, Abravaya has suggested how synchronisation of parallel parts may sometimes be desirable in order to avoid certain dissonances, even though the parts are written with notes of different lengths³. For instance, a quaver after a dotted crotchet in one part may have to be synchronised with a semiquaver after a dotted quaver in another part (i.e. the quaver may have to be shortened to a semiquaver), if there would otherwise be an undesirable dissonance.

Abravaya then quotes examples from the two versions which have survived of Bach's French Overture, namely BWV 831a in C minor as copied by AMB no later than 1733, and a revision of BWV 831 in B minor published in 1735 in the *Clavier Übung II*. Nearly all of the dotted rhythms involving groups of three semiquavers in the first and last 20 bars of the Overture movement of BWV 831a have been more sharply dotted in BWV 831. Abravaya suggests that in many cases the sharper dotting has been introduced in BWV 831 simply because Bach intended it to be played that way, regardless of any issues of synchronisation of the voices. Furthermore, none of the figures in BWV 831a consisting of a dotted quaver followed by a semiquaver have been modified in BWV 831, except where needed to synchronise the right hand with the left hand.

The scope of the sharper dotting in BWV 831 is thus very similar to that of the Allemande in LCJSB. Indeed, some of Abravaya's comments on the two versions of BWV 831 (version 1 being the copy by AMB and version 2 being the revision) are interesting because very similar comments could apply (where version 1 would be CAMB and version 2 would be LCJSB):

The most outstanding change in the new version is the constant re-notation of the *Hauptfigur*, from semiquavers to demisemiquavers..... Demisemiquaver figures do occur in version 1, but are limited there to a proper *tirate*; thus one could hardly expect the performer of version 1 to guess, on stylistic grounds, that he should convert all semiquaver figures to demisemiquavers, particularly when figures of undotted semiquavers coincide with the *Hauptfigur*, which Bach did change to demisemiquavers throughout the entire movement.

Version 2 is an actual 'improvement' over the older one, in that a greater rhythmic unity is achieved. The few fast *tirate*.... of version 1, which at first seemed as orna-

¹ Grützbach, Erwin. 1993. pp.36-37.

² Neumann, Frederick. 1981.

³ Abravaya, Ido. 1997. pp.47-61.

ments of no special consequence, have now become organically related to the Hauptfigur.

Abravaya concludes that sharper dotting is often indeed the best reading, but it should be limited to certain rhythmic figures, instead of being applied as a general solution, and he goes on to criticise some performers such as Gustav Leonhardt for applying sharper dotting too widely.

In the articles mentioned above, both Neumann and Abravaya discuss the different versions of the French Overture BWV 831, but neither of them seems to have analysed the evidence provided in LCJSB, although it seems to be at least as important, and may actually help to strengthen their cases against systematic sharper dotting of every dotted figure.

LCJSB is, however, mentioned together with BWV 831 in an article by Dirst¹, appearing at the same time and in the same journal as Abravaya's article, which generally supports Neumann's views with statements such as 'there is abundant evidence that Bach changed his mind about French rhythmic style', and includes a table showing how Bach introduced sharper rhythms and shorter *tirades* in some of his French Overture style works after about 1730. Williams has also noted that in Bach's later works (after 1720) there is a tendency towards more precisely marked rhythms².

Finally, an issue with rhythm occurs in bars 25 and 28 of the Allemande which does not concern dotting. In most of the sources for cello, the rhythm of the second beat in both bars 25 and 28 is a quaver followed by two semiquavers. However, in bar 25, CKellner and LCJSB have two semiquavers followed by a quaver, while in bar 28 only LCJSB has two semiquavers followed by a quaver.

BWV 1011/995 Allemande, Bars 25-28

The image displays three staves of musical notation for the Allemande in C major, BWV 1011/995, specifically bars 25 through 28. The staves are labeled on the left as CAMB, CKellner, and LCJSB. Each staff shows the rhythmic notation for these four bars. The CAMB and CKellner editions show a quaver followed by two semiquavers in the second beat of both bars 25 and 28. The LCJSB edition shows two semiquavers followed by a quaver in the second beat of bar 25, and two semiquavers followed by a quaver in the second beat of bar 28.

¹ Dirst, Matthew. 1997. pp.35-44.

² Williams, Peter. 2007. p.300.

Bach may have changed his mind several times about the rhythm of these bars. The original source from which Kellner was copying may have had two semiquavers followed by a quaver in the second beat of bar 25, the source(s) from which CAMB, CBerlin and CVienna were derived may have had a quaver followed by two semiquavers in bar 25 and bar 28, and for LCJSB Bach may have decided to have two semiquavers followed by a quaver in both bars. All of the sources have two semiquavers followed by a quaver in the second beat of bar 26, which is the only other bar in this movement with the same figure on the second beat. LCJSB is thus the most consistent source in this respect, having the same rhythmic pattern in bars 25, 26 and 28.

Differences in texture

There are numerous cases where one of the sources for BWV 1011 has more, less or just different notes in a chord or a multiple stopping passage compared to the other sources, thus forming a difference in the texture. CKellner has the most differences of this kind amongst the sources for cello, with thirteen cases in total, while there are two cases in CAMB, one in CVienna and none in CBerlin. There are more differences in texture in LCJSB compared to the sources for cello, but they are mainly attributable to the different technique of the lute, so they will be discussed in section 4.5.

The single case of different texture in CVienna occurs in bar 5 of the Prelude, where an extra D has been added to the first chord of the bar, which is quite playable on the cello and forms a diminished chord on D. The copyist has not added notes anywhere else in his copy, so this extra D may have been an afterthought, perhaps on the suggestion of a contemporary cellist. At first sight it might seem to be an improvement as it forms a logical chord, and the D leads to the C on the next beat. However, the remainder of the bar is built on the tonic triad of F minor, and the C on the second beat is actually a pedal note continuing from the C's in bars 1-3 and continuing in bars 6-8, so a D at the beginning of the bar would seem to be out of place. In LCJSB the first chord is C, A \flat , c, f (lute G, e \flat , g, c'), thus forming a chord of F minor.

BWV 1011/995 Prelude, Bar 5



CBerlin  CVienna 


LCJSB 

The first difference in texture which occurs in CAMB is in bar 16 of the Courante (not illustrated here), where CAMB is lacking the G in the opening chord shown in the other sources. As this is the only case in CAMB where a note is missing from a chord, it was probably caused by a simple copying oversight.

The other difference in texture in CAMB occurs on the sixth quaver in bar 19 of Gavotte II, and is a little more interesting. In this case, there is actually a chord $c, e\flat$ on the sixth quaver in CAMB, while all of the other sources have $e\flat$ (lute bb) alone. This rather strange third in the middle of a quaver passage could have arisen from a simple copying error, if AMB accidentally wrote c , and then 'corrected' it by the addition of an $e\flat$ above. However, as the previous notes in the bar seem to have been copied correctly, forming a simple descending scale, it would be strange to make such an error. The chord is playable on the cello, and there is no indication that only one of these notes is to be played, so it is also possible that a chord was actually intended. LCJSB does not contain a chord at the equivalent location.

BWV 1011/995 Gavotte II, Bar 19

CAMB  CKellner 

LCJSB 

A similar case occurs just once in VAMB, where two notes forming an interval of a third have been introduced as a chord in the middle of a semiquaver passage in bar 64 of the Prelude, as illustrated in the next example. In this case, there may have been some confusion between the beaming and the lines of the stave, because the otherwise identical bar 66 does not have this chord in VAMB (and it is also not in either bar in VJSB, VKellner or LVJSB). As with the example in CAMB, there is no indication as to which note is correct.

BWV 1006 Prelude, Bars 64-66




The 13 differences in texture which occur in CKellner can be sub-divided into four different types:

- three cases where there is a chord of a third introduced in the middle of a running passage, rather like the example in CAMB discussed above,
- five cases where there are fewer notes in a chord than in the other sources for cello,
- four cases where there are more notes in a chord than in the other sources for cello,
- one case where the notes of the chord have been re-arranged.


Cases of the first type occur in bars 154 and 155 of the Prelude. CKellner has been written here (and in other places in this manuscript) using a staff with 6 lines, which may have confused Kellner on the last note of bar 154 and the first note of bar 155. Did Kellner perhaps initially write the upper notes, and then did either he or someone else think that they were wrong and add the lower notes to make them the same as in CAMB? However, as in the similar case in CAMB, it is a little strange that this was done without putting the letter name of the correct notes above or below the correction, and hence leaving an ambiguity. It is possible to play the upper notes on the cello, but it seems very unlikely that the original source from which Kellner was copying would have had 2-note chords here, because there is no particular musical need for the chords and they would be difficult to play at speed. In LCJSB, the added bass line does not contain equivalent notes.

BWV 1011/995 Prelude, Bars 154-155


CAMB



CKellner



LCJSB



The other example of a third possibly intended as a correction in CKellner occurs in bar 171 of the Prelude, and is very similar to the examples from bars 154 and 155 discussed above.

Bar 27 of the Prelude illustrates a typical case where CKellner has fewer notes in a chord than the other sources for cello. The other sources for cello indicate G, d, g for the chord at the start of the bar, but CKellner has no d in the chord, which makes some musical sense because the resulting bare octave G-g recalls the bare octave C-c at the opening of the movement. All of the sources for cello leave an ambiguity between G major and G minor in bar 27, but in LCJSB the chord is G, B^b, d, g (lute d, f[#], a, d'), which resolves the ambiguities of the sources for cello by stating clearly G major (lute D major) after the previous bar which starts in G minor (lute D minor).

BWV 1011/995 Prelude, Bars 26-27

The image displays three musical staves, each representing a different edition of the Prelude in C minor, BWV 1011/995, specifically bars 26-27. The top staff is labeled 'CAMB' and shows a single melodic line with various note values and accidentals. The middle staff is labeled 'CKellner' and shows a similar melodic line but with different note values and accidentals. The bottom staff is labeled 'LCJSB' and shows a more complex arrangement with multiple staves, indicating a different interpretation of the original manuscript.

Although Bach introduced a modulation to the major in LCJSB in the example shown above, it is interesting to note that in the last bar of the Prelude (bar 223) he removed a modulation to the major (Picardy Third) which occurs in all of the sources for cello. This bar has a chord of C major including an e^{\sharp} in all of the sources for cello, while in LCJSB it stays in C minor with an e^{\flat} (lute b^{\flat}).

Of the four cases where CKellner has more notes in the chord than the other sources for cello, two occur in bar 15 of the Courante. At the start of the first beat, CAMB, CBerlin and CVienna all have a quaver chord c, f , while CKellner gives G, c, f and LCJSB gives C, G, c, f (lute G, d, g, c'). Although c, f is certainly the easiest of these to play on the cello, the chord G, c, f can be played with some dexterity, and even the 4-note chord indicated by LCJSB could be played on the cello by arpeggiating it over the bottom three strings.

At the start of the second beat in bar 15 of the Courante, CKellner again has a more complete chord. It is unclearly written, but seems to be f, a^{\flat}, c' , forming a chord of F minor in root position which could be harmonically possible here, but would be impractical to be played on the cello (both in scordatura and normal tuning). The other sources for cello have a^{\flat} (scord. b^{\flat}) alone, and LCJSB has a chord c, e^{\flat}, a^{\flat} (lute g, b^{\flat}, e^{\flat}'). The chord in CKellner was probably present in the original source from which it was derived, but seems to have been erroneous.

BWV 1011/995 Courante, Bar 15

The image displays three musical staves for Bar 15 of the Courante in BWV 1011/995. The top staff, labeled 'CAMB', shows a single melodic line. The middle staff, labeled 'CKellner', shows a single melodic line with some additional notes. The bottom staff, labeled 'LCJSB', shows a two-staff system with a complex chordal texture in the lower voice and a melodic line in the upper voice. The LCJSB version includes a diminished seventh chord in the lower voice on the second beat, which is not present in the other two sources.

In bar 15 of the Courante, there are also other differences between the sources which affect the texture and the harmony. On the second crotchet of the second minim beat, all of the sources for cello have the chord $B\flat$, d , g (scord. $B\flat$, d , a), which is a chord of G minor. However, LCJSB has $B\flat$, $d\flat$, g (lute f , $a\flat$, d'), which is a diminished seventh chord on G, and this is also given in LTAB. While both chords would be harmonically possible here, they are of course very different, and the chord in LCJSB would be virtually impossible to play on the cello. On the third minim beat in the same bar, all of the sources for cello have a chord of $A\flat$ major consisting of $A\flat$, $e\flat$, c' (scord. $A\flat$, $e\flat$, d'), followed by a quaver $d\flat'$ (scord. $e\flat'$). However, LCJSB has the discordant chord of $A\flat$, c , g (lute $e\flat$, g , d'), followed by a c' (lute g') dotted quaver and then a $d\flat'$ semiquaver (lute $a\flat'$), and this is maintained in LTAB. Although the version of this chord given in the sources for cello is easier to play on the cello, the version given in LCJSB could be played on the cello with some dexterity. Both of these changes in bar 15 of the Courante in LCJSB add harmonic interest compared to the sources for cello, and they also create a smooth descending line of thirds between the two lower voices. The fact that the second minim beat could not be played on the cello was of course not important for LCJSB.

It is possible that Bach really would have preferred a diminished triad $B\flat$, $d\flat$, g for the cello on the second crotchet of the second beat in bar 15 of the Courante, but was limited by the possibilities of the instrument, so he inserted a compromise chord with a $d\sharp$. When it came to producing LCJSB, there was no limitation in the technique of the instrument, so Bach was able to insert the chord that he really wanted.

A third example of an extra note in a chord in CKellner occurs on the third beat of bar 26 in Gavotte I, where there is an extra f crotchet in the lower voice which does not appear in any of the other sources (not even in LCJSB) and may have come from a different original source. When combined with the other notes of the second half of this bar, it seems to form a continuation of the chord of F major which was established in the first half of the bar, and therefore seems to be quite logical.

BWV 1011/995 Gavotte I, Bar 26


CAMB 

CKellner 


LCJSB 

The fourth example of an extra note in a chord in CKellner occurs on the first beat of bar 8 in Gavotte II, where the three scordatura versions indicate g on the open top string and also g in unison on the D string, followed by a G. LCJSB indicates a single g (lute d') in the upper voice, and G₁ (lute D) as the first note in the added bass voice. CKellner has a chord of g, b \flat , followed by a G, which would add harmonic interest to the opening of the bar, but would no longer resemble the simple octave jump in the otherwise similar cadences in bars 4 and 22. On a cello in normal tuning, only a single g can be played on the d string, with no unison g on the top string) but it would be possible to play the additional b \flat indicated in CKellner, clarifying the G minor cadential chord and not disturbing the musical flow.

BWV 1011/995 Gavotte II, Bar 8

CAMB 

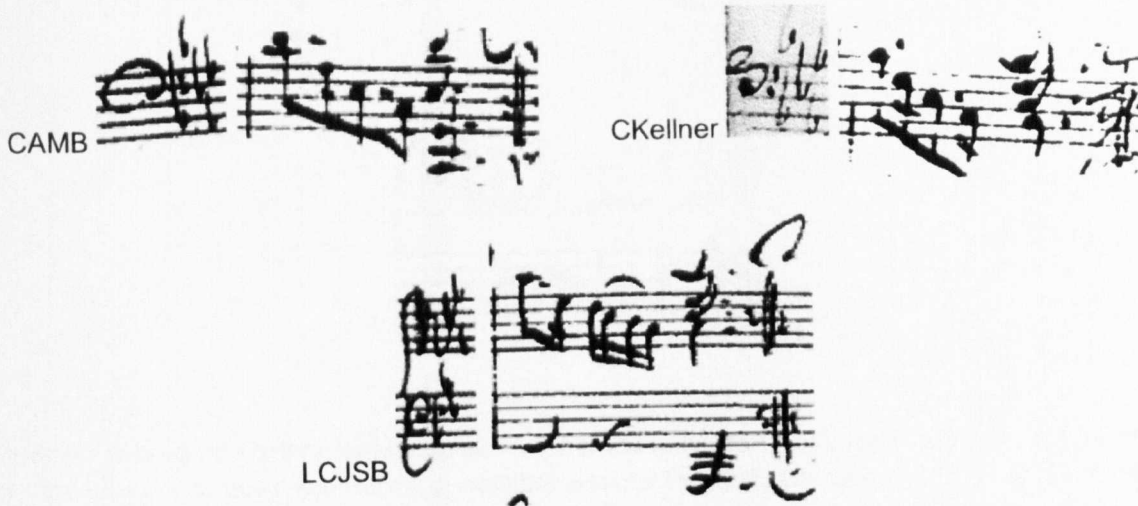
CKellner 

LCJSB 

The chord in CKellner which is differently arranged from the equivalent chord in the other sources occurs in bar 36 of the Allemande, the last bar of the movement. The last chord is shown as C, G, e \flat , c' (scord.C, G, e \flat , d') in CAMB, CBerlin and CVienna, while CKellner gives c, e \flat , g, c' (the top note is slightly unclear and could have been intended to be d', al-

though that seems unlikely for the final chord of the movement). LCJSB gives C_1 , c , $e\flat$, g , c' (lute G_1 , g , $b\flat$, d' , g'), which is actually the same as CKellner except for the additional C_1 .

BWV 1011/995 Allemande, Bar 36



Although the harmony of the chord is the same in all of the sources, the chord given by CKellner in bar 36 of the Allemande cannot easily be played on the cello, regardless of whether the cello is in normal tuning or in scordatura, because it gives a four note chord to be played on the upper three strings which can only be done by an awkward arpeggiation. The other sources for cello were probably derived from one or more different sources which had a revised chord here. The similarities noted here between CKellner and LCJSB will be further discussed in chapters 7 and 8.

The two chords mentioned above which cannot easily be played on a cello in normal tuning (bar 36 of the Allemande and bar 15 of the Courante) are also discussed in the next section on arpeggiation of chords.

4.4 Arpeggiation of chords

In section 3.2 above, an indication was given of the chords in BWV 1011 which can only practically be played on a cello in scordatura tuning. Although CKellner has been written for a cello in normal tuning, it also contains several chords which are impractical for performance on a normally-tuned cello, occurring in bars 2, 16 and 17 of the Prelude, bars 9, 11, 24 and 36 of the Allemande and bars 15, 20 and 32 of the Courante. These bars contain either four-note chords where all of the notes can only practically be played on three strings of the cello (e.g. bar 36 of the Allemande, illustrated in section 4.3.4), or three-note chords which can only practically be played on two strings of the cello (e.g. bar 15 of the Courante, also illustrated in section 4.3.4). Thus, the only way to play them as written on a normally-tuned cello is to arpeggiate them, although in most editions at least one note of each chord is usually either omitted or transposed by an octave to facilitate the execution.

The chords in bar 36 of the Allemande and bar 15 of the Courante in CKellner are special cases because they would be difficult to play on a cello in either normal tuning or scordatura tuning. The other chords in CKellner which are listed above are not difficult to play on a cello in scordatura.

If Kellner was copying the Cello Suites for his own use on the keyboard or as a model for composition, as already mentioned above in section 3.2, there would of course have been no problem for him if some of the chords could not be played on the cello. However, there is also a possibility that Kellner intended his copy to be for a bass viol, although this does not seem to have been considered very seriously in the literature. The title page of Kellner's manuscript indicates 'Sechs Suonaten pour le Viola de Basso', and Kellner certainly must have known the difference between a cello and a viol, so his title may have been quite deliberate.

The bass viol in Bach's time in Germany usually had six or seven strings tuned as (A₁), D, G, c, e, a, d'. All of the chords in CKellner which are not practical for a normally tuned cello could easily be played on the bass viol. For instance, the chord on the first beat of bar 2 of the Prelude (C₁, B, f, a_b), illustrated below, could be played on a 7-string viol with a fingering such as:

second finger on the e string, third finger on the c string, second finger on the G string, first finger on the A₁ string.

BWV 1011 Prelude, Bar 2



When these chords in CKellner which are impractical for the cello are considered together with the text on the title page of Kellner's manuscript, it seems to be possible that the music in the entire manuscript was actually intended to be played on a viol. This theory is further supported by the presence of 5-note chords at the end of the Preludes of the 2nd and 3rd Suites, suggesting an instrument with at least five strings. Although some 5-string cellos did exist in the early 18th century, they were comparatively rare, and a viol may be a more likely intended instrument¹. There was a resident violist in Köthen at the time when Bach was there, Christian Ferdinand Abel, and viol-playing would have been an important part of the musical life there.

On the other hand, some passages in Bach's Cello Suites are certainly facilitated by having an instrument tuned in fifths, so they are difficult to play on a viol. Another possible explanation for these impractical chords in CKellner is that 18th Century violinists and cellists some-

¹ 5-string are briefly cellos discussed in Stowell, Robert. 1999. p.13.

times played quadruple stops by lingering on the bass, and then making a quick arpeggiation by playing the other notes individually to the top. This is supported by the extracts from bar 2 of the Prelude shown above, where the stem of the bass note is not joined to the stems of the other notes in the chord, and indeed in LCJSB the stems of the notes in most chords are not joined together (as can be seen in many of the examples in this chapter).

Further support for this possibility comes from consideration of certain chords in Bach's Violin Solos in which there is no complication with scordatura tuning, yet some chords require the same finger to be used to play both the note on the lowest string and the note on the highest string of the violin. An example is shown in the next extract from the autograph manuscript:

BWV 1004 Sarabande, Bar 21



In this extract, the second chord requires a first finger to play the lowest note (a) on the g string of the violin, but the first finger is also required to play the top note (f'') on the e'' string. The intermediate notes would be played with a third and fourth finger on the two middle strings. Thus, even when playing with a Baroque bow in which the hair might be loose enough to allow all four strings to be played simultaneously, this chord has to be arpeggiated so that the top and bottom notes would be played separately.

If it was expected that such chords would be arpeggiated, then there would generally be no great difficulty to play the 'impractical' chords on a normally-tuned cello as they are indicated in CKellner. Furthermore, this would provide a justification for playing the whole of BWV 1011 on a normally-tuned cello, arpeggiating any chords which could not be played in any other way. The fact that three of the surviving sources indicate scordatura tuning does not prove that this Suite was originally conceived for a cello in scordatura, and indeed some passages in the Prelude are actually easier to play on a normally-tuned cello, as has already been noted in section 3.2.

The disadvantage of arpeggiating the chords may be that this can disturb the rhythm and the melodic line, so there is an element of subjective choice for the performer to decide the extent to which he or she arpeggiates each chord, depending on the melodic line and the technical capabilities of the performer.

In summary, it is not possible to draw definitive conclusions from this evidence concerning the instrument which Kellner had in mind when producing his copy of the Cello Suites (cello, bass viol or a keyboard instrument), nor how the chords were expected to be performed. The only conclusion is that it is important to remain open to all of the possibilities on both points, and that none of the possibilities can be eliminated.

4.5 Assessment of special features of LCJSB

LCJSB has already been widely used as a reference for the discussion of issues in the sources for cello in preceding chapters, but the notes in LCJSB also introduce some issues of their own. The objective of this section is to assess aspects of LCJSB which illustrate Bach's intentions for performance on the lute, often giving further insight into his intentions for performance of equivalent passages for the cello.

The normal tuning of Baroque lutes of the early 18th century in Germany has been explained in section 2.4.2. However, particular features of LCJSB which have led to speculation about the instrument for which it was intended, and the way in which it would have been played, are the inclusion of several low chromatic notes, notes of pitch G_1 , and an apparent requirement for plucking of the individual strings of the lower courses (often each course is a pair of strings tuned in octaves)

Most of the movements of LCJSB contain examples of notes of pitch G_1 , one tone lower than the lowest course of a normally-tuned 13-course lute. Prinz provides a table which shows that LCJSB is the only one of Bach's works for lute requiring a note of pitch G_1 . Tuning the lowest course down from the normal A_1 to G_1 to play these notes would not be a practical option, because it would render the A_1 virtually impossible to play – fingering of the lowest course is not a practical possibility as there is no fingerboard underneath, and the stretch for the left hand would be excessive. There is also no indication for a special tuning at the start of the manuscript (as there is for the scordatura manuscripts of BWV 1011).

In LTAB, these notes of pitch G_1 have all been raised by an octave, so the lowest note is A_1 and the Suite can thus be played on a normally-tuned 13-course lute. Bar 18 of Gavotte I provides a typical example in the bass voice on the second minim beat, shown in the next example, where the G_1 in LCJSB has been raised to G in LTAB.

BWV 995 Gavotte I, Bar 18



LCJSB



LTAB

There are also several instances of the use of chromatic notes in the range of the lower courses of the lute, especially notes of pitch E_b , E, F and F^\sharp (for instance in Gavotte II bars 13-15 illustrated below). As the lower strings were usually tuned diatonically, it would be necessary to stop them in order to play these chromatic notes. However, this is not easy because the fingers of the left hand have to make a very large stretch to reach them, and often the lower courses do not lie over the fingerboard.

BWV 995 Gavotte II, Bars 13-15



There seem to be three possible explanations for the notes of pitch G_1 and the low chromatic notes in LCJSB:

- a) Bach had a 14-course lute in mind, which would have had the top thirteen courses strung as usual, but with an extra course added below which was tuned to G_1 . If this is the case, then he must have assumed that some special technique would be used by the player to play the chromatic notes, such as playing them one octave higher than notated, where they could be fretted. A 14-course lute by J.C.Hoffman (1683-1750) was mentioned in section 2.4.2.
- b) Bach composed the Suite for the lautenclavicymbel (or lautenwerk), on which there would have been no particular difficulty to play either the notes of pitch G_1 or the chromatic notes. Williams notes that several of these instruments are associated with Bach in his time in Weimar, Köthen and Leipzig¹. As Bach was primarily a keyboard player and is not known to have played the lute to a competent level, the lautenclavicymbel might have been attractive for him, even though the instrument itself was not widely available. The only known evidence that Bach may have played the lute is very weak, and comes from his 'Testimonial on behalf of Johann Ludwig Krebs' of 1735, in which he declares that he had trained Krebs, and that the latter had 'qualified himself in respect to the clavier, the violin and the lute', but this is certainly not conclusive proof that Bach taught or played the lute himself². It is also possible that Bach had composed an early version of BWV 1011 for keyboard, which he might have used for reference during the transcription process but may also have contained notes which were difficult to perform on a lute.
- c) Bach did not have any particular lute in mind, but was pressed for time when making the transposition – some haste is suggested by the rather messy state of the manuscript. He therefore chose not to transpose the Suite into A minor, which would have been easier for the lutenist, but into G minor because it was an easy transposition from a version for cello – using tenor clef for the melody line, a transposition up a perfect fifth means that the notes of the cello version stay at the same position on the staff and only some of the accidentals have to be adjusted. Bach might have known that the transcription would give some technical difficulties to the performer, but assumed that they were solvable.

¹ Williams, Peter. 2007. p.282.

² David, Hans and Mendel, Arthur. 1998. p.170.

Although Bach seems not to have been concerned about the notes of pitch G_1 , there are indications that he was aware that the chromatic notes on the lower courses would be difficult to play. For instance, in bars 68-72 and 187-191 of the Prelude, the bass voice which has been added in LCJSB compared to the sources for cello jumps up an octave when a chromatic note is to be played, e.g. the E_1 in bar 70 and the $C\sharp$ and $F\sharp$ in bars 188 and 190. The raised chromatic notes would be played on higher courses which are easier to fret, and the voice leading is only slightly disturbed because the lower courses may in any case have included a duplicate string one octave higher. However, not all of the chromatic notes in the bass voice have been systematically raised in this way.

BWV 995 Prelude, Bars 68-72




BWV 995 Prelude, Bars 187-191



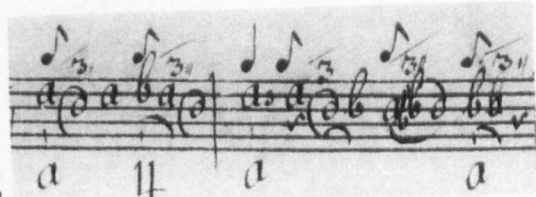
In bar 1 of Gavotte II, Bach seems to have changed his mind about raising a chromatic note and left it in the lower octave. The \sharp sign which has been crossed out in the bass line shows that Bach may initially have considered placing the third note in the bass one octave higher. However, he apparently changed the $F\sharp$ back to the lower register to retain the smooth movement of the bass line, and therefore required the performer to stop the eighth course. The tabulator has raised this $F\sharp$ to $f\sharp$ for easier fretting. A similar example occurs in bar 13 of the same movement.

BWV 995 Gavotte II, Bar 1

LCJSB



LTAB



An even more extreme example occurs in bar 15 of Gavotte II, illustrated below, where there is an E \sharp on the second crotchet beat which requires stopping the ninth course (normally tuned to E \flat in the key of G minor, noting that notes of pitch E \flat are required elsewhere in this movement, e.g. bar 14). Both the E \sharp and the following F have been raised in LTAB by an octave.

BWV 995 Gavotte II, Bar 15

LCJSB



LTAB



Bach required stopping on the lower courses in several of his lute works¹:

eighth course in BWV 999

eighth and ninth course in BWV 995 and the St. John's Passion

ninth and tenth course in BWV 996 and BWV 198

eleventh course in BWV 1006a and BWV 998

Although this practice seems to be fairly uncommon, it was occasionally used by other composers, as shown by Grossman in an example of a low F followed by an F \sharp in a Sonata in B \flat major for Lute Solo by Joachim Bernard Hagen, written c.1766¹:

¹ Eichberg, Hartwig and Kohlhasse, Thomas. 1982. p.94.

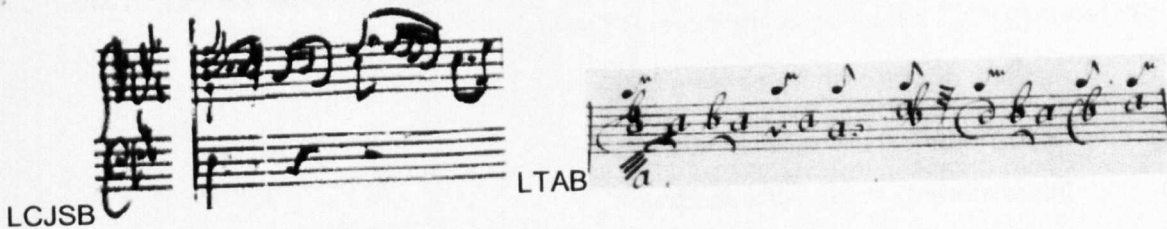
Hagen Sonata in B \flat major, Allegro, Bar 22²



There is only one example in LCJSB of an apparent requirement to pluck the individual strings of the lower courses (normally tuned in octaves) separately, which arises in the chord on the first beat of bar 25 in the Allemande of LCJSB. Grossman comments on this bar³:

The technique of playing the two notes of the lower lute courses separately is documented in French and German Baroque lute sources. There is one chord in LCJSB which appears to rely on this technique, namely in bar 25 of the Allemande, which can only be played by playing the fundamental and octave strings separately. The use of the octave string of the ninth course to produce the bass d allows the other notes to be easily played by the left hand using normal fingering. This shows Bach's knowledge of Lute technique.

BWV 995 Allemande, Bar 25



Grossman's theory is that the d in the first chord of bar 25 cannot be played on the upper courses because they are used for the other notes, so it must be played on the upper string of the ninth course. The fingering would probably be as follows:

The upper eb' could be played on the second course (tuned to d') with the first finger

¹ Grossman, Robert. 1987. p.107.

² This manuscript is held in the Staats und Stadtbibliothek of Augsburg, Tonk. 2, Hs. Fasc. III/1-2.

³ Grossman, Robert. 1987. p.95.

The c' could then be played on the third course (tuned to a) with the third finger (or perhaps the second finger stretched to the position of the third)

The a could be played on the fourth course (tuned to f) with the fourth finger

The f could then only be played by the second or third finger on the fifth course (tuned to d)

The d in the bass can therefore not be played on the fifth course (tuned to d), and could only be played as Grossman says on the upper string of the ninth course (unstopped).

This is, however, very awkward to play on the lute, and it has been simplified in LTAB to a chord of just 3 notes, D (ninth course), a, e \flat '. It seems doubtful, therefore, whether this chord really shows that Bach was very familiar with lute technique, as claimed by Grossman. It seems rather to indicate that Bach sometimes over-estimated the possibilities for playing some chords on the lute.

Substantial differences in LCJSB

LCJSB has substantial differences compared to the sources for cello in many bars where the sources for cello are all identical, as illustrated in Table 10. These differences may represent new thoughts which occurred to Bach while he was working on the transcription. Some of them are specific to lute technique and could not be re-transcribed into a version for performance on a cello, but some could be re-transcribed and thereby may add extra interest to a performance on the cello, as has been done to a certain extent by both Markevitch and Lim¹.

A summary of each substantially different bar in LCJSB is provided in Table 11, and a few of the more interesting examples will be discussed in the remainder of this section, in which the differences in LCJSB will be categorized as follows:

Addition of one or more passing notes

Changes which affect the accentuation

Improvements to the voice leading

Changes to main motifs

Passing notes have been added in LCJSB in bars 26 and 114 of the Prelude and bars 12, 18 and 36 of the Allemande, apparently to produce a smoother melodic line by filling in some intervals of a third or a fourth. All of these changes could be played on the cello. For example, in bar 36 of the Allemande, shown below, the appoggiaturas in CBerlin and CVienna show a tendency towards smoothening the line compared to CAMB and CKellner, and this has been carried a step further in LCJSB (in CBerlin, the passing note is very faint in the reproduction below, but nevertheless quite clear in the manuscript itself).

¹ Markevitch, Dimitry. 2000, and Lim, Jungmook. 2004.

BWV 1011/995 Allemande, Bar 36

The image displays four different musical editions of Bar 36 from the Allemande in BWV 1011/995. The editions are arranged in a 2x2 grid. The top-left edition is labeled 'CAMB' and shows a single staff with a treble clef. The top-right edition is labeled 'CKellner' and shows a single staff with a treble clef. The bottom-left edition is labeled 'CBerlin' and shows a single staff with a treble clef. The bottom-right edition is labeled 'CVienna' and shows a single staff with a treble clef. Below these four editions is a larger, more complex musical notation labeled 'LCJSB', which appears to be a multi-staff arrangement, possibly for a larger ensemble or a different instrument setting, showing a different rhythmic and melodic interpretation of the same bar.

The only changes which affect the accentuation in LCJSB occur in the fugal section of the Prelude, where Bach has made changes which seem to invite the performer to place the accents differently, creating the effect of two groups of three semiquavers instead of three groups of two semiquavers, i.e. the emphasis could be interpreted as moving to the first and fourth semiquavers of the bar, thus creating the effect of a 6/16 time signature instead of 3/8. For instance, a new motif has been introduced in bars 84-86 with three descending arpeggiated semiquavers at the beginning of each bar, thereby partially sacrificing the motif of three ascending quavers which comes through clearly in the lower voice of the sources for cello. Although it would still be possible to play these bars as given in LCJSB with accents on the first, third and fifth notes, the performer may feel that it is more natural to accent the first and fourth notes only.

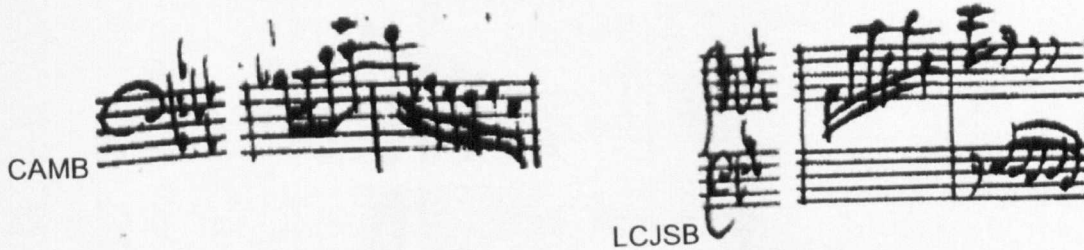
BWV 1011/995 Prelude, Bars 84-87

The image displays two different musical editions of Bars 84-87 from the Prelude in BWV 1011/995. The top edition is labeled 'CBerlin' and shows a single staff with a treble clef. The bottom edition is labeled 'LCJSB' and shows a single staff with a treble clef. The LCJSB edition features a more complex and dense musical notation, with many notes and accidentals, suggesting a different interpretation of the original manuscript.

Similar cases occur in bars 40, 98, 99, and 156 of the Prelude, and all of these changed bars could be played on the cello in their revised form.

Bach also seems to have made an effort to make the separate voices of the polyphony a little clearer when making the transcription in LCJSB. A typical example occurs in bar 88 of the Prelude, where the change in LCJSB helps to emphasize the lower and middle voices more than in the sources for cello, by lowering the opening note and introducing intermediate semiquavers in the middle voice between the notes of the upper voice. Both bar 88 and a similar case in bar 149 of the Prelude as given in LCJSB could be played on the cello.

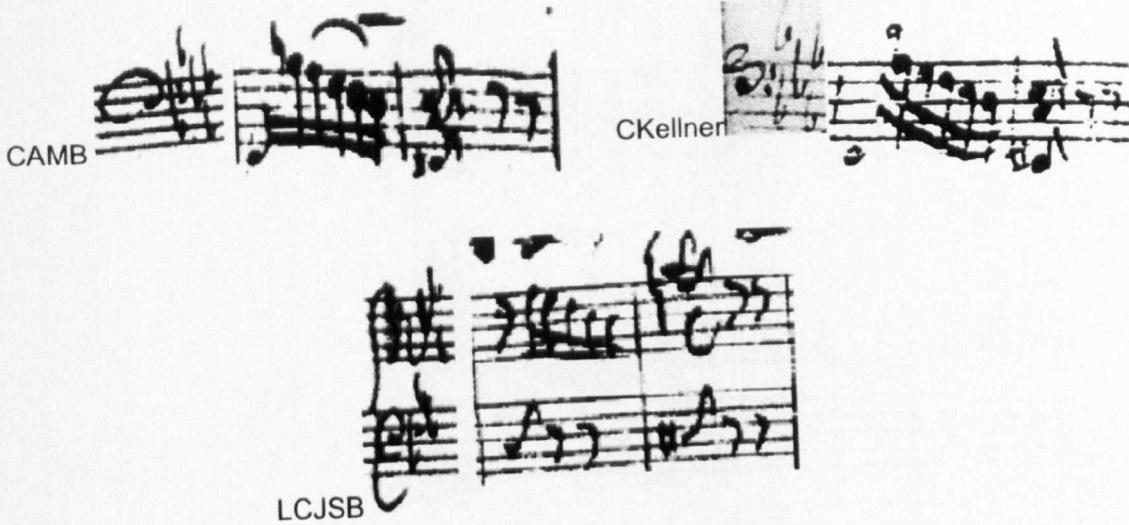
BWV 1011/995 Prelude, Bars 88-89



A different kind of change to the voice-leading occurs in bar 219 of the Prelude, where the chord is F#, c, eb in the sources for cello, but has been changed in LCJSB to F#, d, a, c' (lute c#, a, e', g'), allowing the c' at the top of the chord to continue the upper voice line from the top note in the previous bar, and on to the eb' in bar 220¹. Neither of these alternatives can easily be played on the cello, whether or not it is tuned in scordatura. Most modern cello editions re-arrange the chord to F#, eb, c', thus raising the c to c' to ease execution, at the same time improving the continuity of the upper voice.

¹ In bar 218, there is a difference in the second note between the sources. This difference is discussed in section 4.3.3.

BWV 1011/995 Prelude, Bars 218-219



Similarly, on the first beat of bar 22 of Gavotte I, the $A\flat$ in the sources for cello has been raised to $a\flat$ (lute eb') in LCJSB, probably to improve the voice leading. The upper voice at the end of the previous bar in the sources for cello descends from c' to $b\flat$ (scord. d' to c'), and the bass voice from $A\flat$ to G . On the first beat of bar 22 in the sources for cello, the bass continues the descent to F , but the upper voice descends not by a second to $a\flat$ but by a ninth to $A\flat$. This may have been done to facilitate playing (as suggested by Artzt¹), at the cost of breaking the smooth descent of the upper voice, but $a\flat$ would not have been much more difficult to play on the cello. LCJSB has a clearer voice leading with the upper and lower voices descending smoothly in parallel tenths.

¹ Artzt, Alice. 1968.

BWV 1011/995 Gavotte I, Bars 21-22



In the Gigue, Bach has slightly revised the motifs in two instances when making the transcription in LCJSB. The first example occurs in bar 1, which is identical to bar 2 in all of the sources for cello. Yates regards this repetition as a weak opening¹, and Efrati even goes so far as to suggest that the duplicate bar is an error in the sources for cello². However, it seems unlikely that all of the copyists would have made such an error.

The opening of the Gigue has been modified in LCJSB by revising the motif in bar 1 to be similar to bar 3, thus ensuring that bar 2 is not the same as bar 1. The semiquavers in bar 1 are rather unclearly written, and could almost be thought to be demi-semiquavers, but by analogy to the many recurrences of this motif in the movement, and by considering the total number of beats for the bar, it seems likely that Bach intended semiquavers here. In LCJSB, bars 3 and 4 thus form an imitative voice after bars 1 and 2.

¹ Yates, S. 1996. p.15.

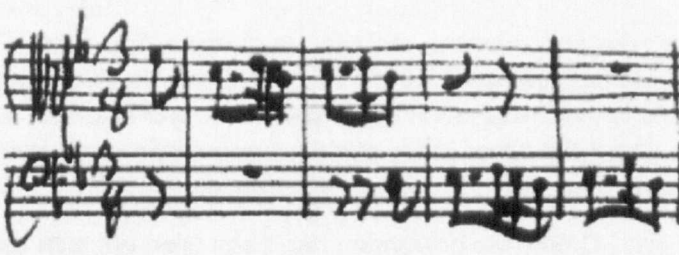
² Efrati, Richard. 1979. p.231.

BWV 1011/995 Gigue, Bars 1-4

CAMB



LCJSB



The other substantial difference in LCJSB involving alteration of motifs occurs in bars 27-29 of the Gigue, where the changes also involve quite different note pitches. The rhythmic motifs of bars 27 and 29 have been reversed between the sources for cello and LCJSB, with different note pitches extending from bar 27 into bar 28. There seems to be no particular reason to prefer one of these alternatives over the other.

BWV 1011/995 Gigue, Bars 27-30

CVienna



LCJSB



Changes to the texture in LCJSB

The use of polyphony in Bach's Cello Suites is often implicit rather than explicit. Textural techniques such as chords, arpeggiation and disjunct melody are used to distinguish multiple voices, but they are comparatively sparse, so that the audience and the performer are expected to imagine the presence of certain notes to complete the harmony, or to remember notes which occur in a certain voice during a long period before the next notes occur in the same voice. This minimalist approach to the polyphony may partly have been adopted due to the limitations of the cello technique in the time of Bach, as multiple stop chords are quite difficult to execute on the cello, but sometimes it seems that Bach may have deliberately set out to leave as much as possible to the imagination of the performer and listener. In contrast, Bach's Violin Solos, written at about the same time, contain more explicit polyphony (especially more chords), i.e. they do not have such a 'minimalist' approach.

When transcribing BWV 1011 into LCJSB, the polyphony has been filled out with extra notes compared to the sources for cello, in some cases thus clarifying his understanding of the linear movement of each voice. The added notes often serve the double function of adding extra weight and resonance to particular chords, while at the same time helping to reduce the fragmentation of some of the voices (especially the lower voices). In particular cases, the extra notes also introduce an element of counterpoint. Occasionally, the extra notes added in LCJSB would be perfectly practical for a cello performance because they lie well for the instrument, although this may contravene Bach's possible intention to leave the polyphony implicit.


In bars 50-51 of the Prelude in LCJSB, for instance, it can be seen that Bach has used the two staves, some rests and extra notes in the top voice to clarify the separate voices which he had in mind. Similarly, in bars 56-57 of the Prelude the gap between the two polyphonic lines in the sources for cello has been partially filled by a new middle voice, and a new bass voice has been added, both changes helping to give the passage a more dynamic rhythm and an increased tension.

BWV 1011/995 Prelude, Bars 50-51


The image displays two musical staves side-by-side, labeled 'CAMB' and 'LCJSB'. The 'CAMB' staff shows a sparse musical notation with several notes and rests. The 'LCJSB' staff shows a more complex notation with additional notes, including a new middle voice and a new bass voice, and includes handwritten annotations above the top staff.

BWV 1011/995 Prelude, Bars 56-57

CAMB



LCJSB



In the Courante, some of the harmonies have been still further filled out during the production of LCJSB, thus creating a clearer polyphonic texture with a more complete bass line than that of the sources for cello during most of the movement. However, although many of the chords in the sources for cello have been filled out in LCJSB, it is remarkable that in all of the sources for BWV 1011 and BWV 995 (including LTAB) the chord at the start of the first whole bar of the Courante remains a bare octave C, c. This octave has several important qualities which Bach apparently wanted to maintain, giving the movement a feeling of being stripped down to its ascetic essentials and recalling the same bare octave at the start of the Prelude (which is also maintained in all of the sources, except in LTAB where a full four-note chord of C minor has been introduced).

The way in which the voices have been filled out in the Courante of LCJSB is fairly consistent throughout the movement. Nineteen out of the total of twenty-four bars start with a minim in the bass, the exceptions being bars 11, 12, 18, 23 and 24. In most cases, the minim is followed by at least a crotchet rest in the lowest voice, and in eleven of the bars there are three crotchets at the end of the bar in the lower voice. In comparison, CAMB only has one bar with a minim at the start (bar 5), but it has fifteen bars which start with a dotted crotchet chord, most of which include a note in the bass voice. CAMB has just three bars with three crotchets at the end of the bar in the lower voice. Bars 17-20 are shown below as an example.

BWV 1011/995 Courante, Bars 17-20

CAMB



LCJSB



By indicating minims instead of dotted crotchets in these bars of the Courante, the lutenist was probably intended to let the lower note at the start of each bar ring as long as possible to maximize the resonance. Also, the groups of three crotchets at the end of the bar in the bass give the bass voice a feeling of 6/4 rhythm, which contrasts with the 3/2 rhythm of the upper voice. The Courante in any case moves into 6/4 in the final bar of each section (bars 12 and 24) in all of the sources, so this earlier hint of 6/4 in the bass in LCJSB helps to prepare the listener for bars 12 and 24. A similar ambiguity in rhythm between 3/2 and 6/4 occurs in parts of the Courante of Bach's 4th Keyboard Partita BWV 828 and the Courante II of Bach's first English Suite BWV 806, but is not so evident in some of Bach's other French Courantes, such as those in the French Overture BWV 831 and the Keyboard Partita BWV 826.

In his edition for cello based on LCJSB, Markevitch has added the groups of three crotchets in many places in the lower voice of the Courante, and Efrati supports this idea for bars 5, 6, 7, 8 and 10¹.

The texture of Gavotte I in the version for cello is mostly three-voice, except for just one chord with four voices which occurs at the start of bar 32 in all of the sources for cello. Although the texture of this movement in LCJSB has been modified in 35 of the 36 bars, with additional notes in many bars to improve the bass and middle lines, it remains mostly in three voices, with just three chords having four notes. Unusually, in this movement there are six cases where some notes have actually been removed in LCJSB compared to the sources for cello, thus simplifying the texture, occurring in bars 11, 13, 20, 30, 32 and 35 (only bar 11 is shown here).

BWV 1011/995 Gavotte I, Bar 11



CAMB



LCJSB

Bach may have felt that the texture in the sources for cello was a little too heavy for the lute in these bars, and that it needed to be simplified in the transcription to allow the melody to emerge more clearly and to give a lighter effect. However, there is also another possible explanation for the simplifications. In every case except in bar 13, it is the middle voice(s) which has (have) been omitted in LCJSB. It is therefore possible that at least some of the extra notes were included in the sources for cello for the purely technical reason that the strings would be touched anyway by the bow in playing the outer notes, and that Bach pre-

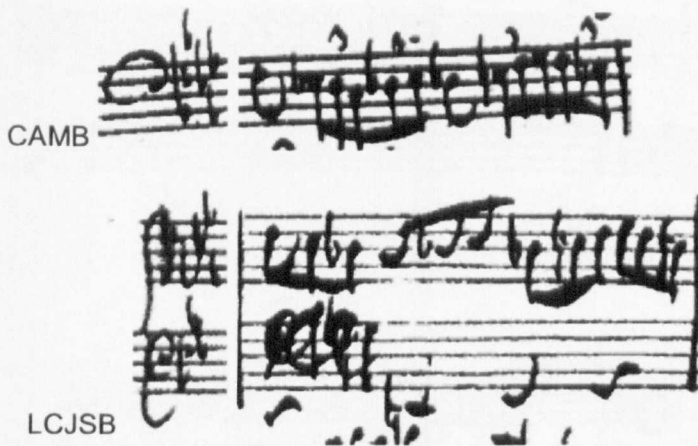
¹ Efrati, Richard. 1979. p.267.

ferred to omit them for LCJSB where the same technical limitation did not apply. This may be evidence that this Suite was not originally conceived for the cello.

In Gavotte II, Bach has filled out the texture in LCJSB to a greater extent than in any of the other movements, by adding a complete new bass line which continues throughout the movement. Although some of the notes of this voice could be added for a cello performance, it would not be practical to add enough notes to form the continuous bass line as in LCJSB.

The new bass line in Gavotte II of LCJSB includes several corrections, so it may have been written rather hurriedly, as for instance in bar 15 where Bach appears to have changed his mind about the first beat in the bass (deleting the initial version and replacing it with a rest).

BWV 1011/995 Gavotte II, Bar 15



The bass line in Gavotte II in LCJSB is mostly written in steady crotchets, often moving by step, creating a feeling of 4/4 in place of the 2/2 given in the time signature, as illustrated in the example above. This has an impact on the upper voice in bars 15 and 16, and the first half of bar 17. In these bars, all of the sources for cello have the first and seventh quavers articulated separately, each followed by a group of five quavers linked together, thus creating an interesting change of rhythm compared to the other bars of the movement, which are all divided into four crotchet beats. However, in LCJSB it seems that the first note in the upper voice of bar 15 was initially written separately (with a redundant tail on the first note), but then it was changed to a triplet beamed together with the following notes, probably because Bach wanted to add the crotchets in the bass which would not have fitted well with the phrasing given in the sources for cello. Similar changes occur in the upper voice in bars 16 and 17.

In the Gigue, Bach has filled out the texture in LCJSB almost to the same extent as in Gavotte II, illustrated in the extracts below. Although some of the notes of this voice could be added for a cello performance, it would not be practical to add enough notes on the cello to form the complete bass line given in LCJSB.

BWV 1011/995 Gigue, Bars 32-72

CAMB

32

40

51

62



LCJSB

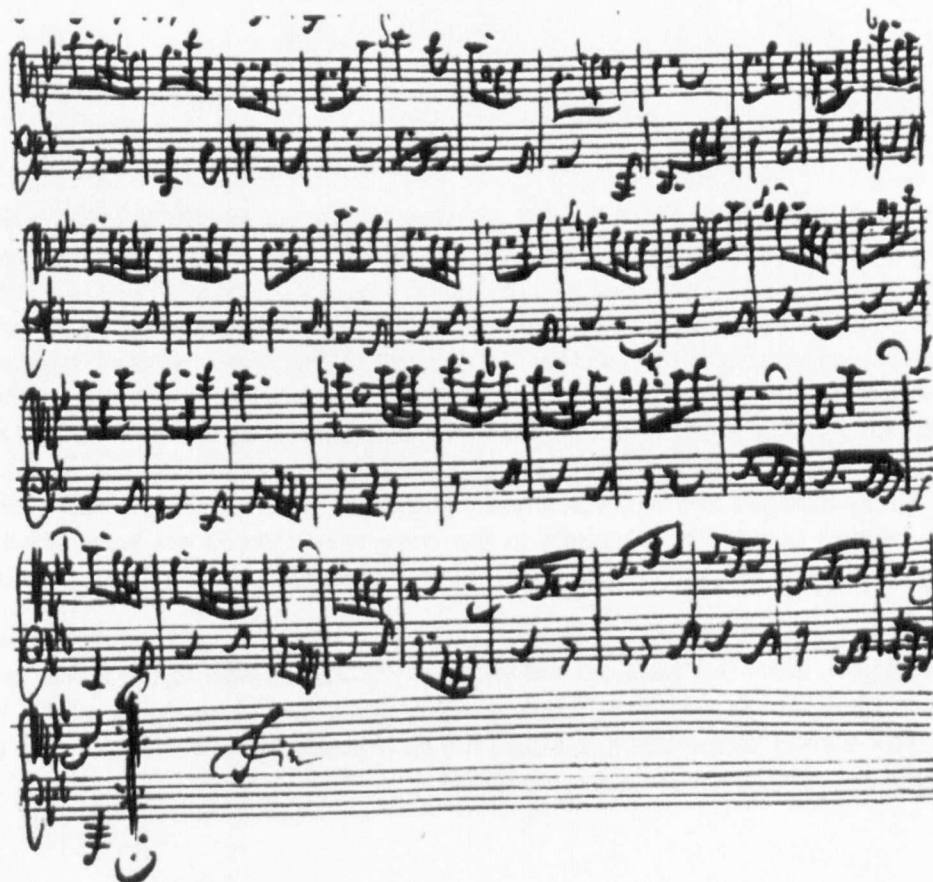
32

43

53

62

72



Artzt comments on the Gigue in LCJSB¹:

The cello version has almost no trace of polyphony, but in LCJSB there is truly independent 2-part counterpoint throughout. Bach has constructed the two parts by breaking up the cello line, giving bits to the treble and bits to the bass, and then inserting new material into both parts to fill in the gaps. Ties and contrasting rhythmic patterns have been used to separate the two lines. In places where the cello has longer held notes, as in bars 55-56, special pains have been taken to fill up the void. This is probably the only movement in which, if one were given the lute arrangement, one would have some difficulty in reconstructing exactly the cello part. One gains little insight into the ways of interpreting the cello version from this Gigue movement, but one does learn much about Bach's compositional procedures.

It is perhaps an exaggeration to say that there is an independent 2-part counterpoint throughout the Gigue in LCJSB, as the additional notes in the bass sometimes occur in a rather isolated way only once per bar, especially in the first section of the movement. The truly independent counterpoint occurs mainly in bars 33-65, illustrated in the next extracts. In several places, the rhythmic figures are continued in the bass against the ties and other long notes in the upper staff, something only implied in the sources for cello. This occurs in bars 18, 55, 56, 61 and 64.

4.6 Comparison to the sources for BWV 1006

As mentioned in section 1.4, the Gavotte en Rondeau and Menuet I from the Violin Partita BWV 1006 provide information about the copying habits of AMB and Kellner which is especially relevant to the sources of BWV 1011. Furthermore, there is no scordatura in BWV 1006, and there is also no problem of confusion with a Dorian key signature because it is written in a major key, so the issues with the notes in the sources for BWV 1006 are generally simpler than those found in the sources for BWV 1011.

In the literature, varied and even conflicting opinions are expressed concerning the reliability of AMB as a copyist. Tomita summarises some of these opinions, and concludes that he 'finds it difficult to accept that Anna was an experienced copyist'². He suggests that Bach had a number of more reliable copyists working for him in Leipzig until about 1730, and that it was only after the departure of these capable copyists that Bach began to rely more on the copying of AMB. In any case, it seems that AMB copied the Cello Suites at about the same time as she copied the Violin Solos, using similar paper and probably in response to the same commission (perhaps from Schwanberg), so it can be expected that she would have taken the same amount of care for both sets of copies. Thus, the quality of her copy of the violin works should be a good indicator of the extent to which her copy of the Cello Suites can be relied on.

¹ Artzt, Alice. 1968.

² Tomita, Yo. 2007. pp.64-66.

Similarly, Kellner copied the Cello Suites at about the same time as he copied Bach's Violin Solos, using similar paper, so the quality of his copy of the violin works should be a good indicator of the extent to which his copy of the Cello Suites can be relied on.

LVJSB also makes an interesting source for comparison to LCJSB. Unlike the transcription of BWV 1011 into LCJSB, Bach made no change of key when he transcribed VJSB into LVJSB. However, he did fill out the texture and the voice leading substantially, as in LCJSB, and he seems to have taken more care to make LVJSB suitable for performance on a typical 13-course German late Baroque lute. Throughout LVJSB, the lowest note is A₁ (not G₁ as in LCJSB), and there are no chromatic notes requiring fingering of the lower courses.

The notes of VAMB in the Gavotte en Rondeau are identical to those of VJSB, except in bar 81 where the second half of the bar is simply missing in VAMB. In VAMB this bar comes at the end of a line, so the copying error is similar to that which has been seen in the Gigue of CAMB, where AMB was also confused by the end of a line (in the case of CAMB, duplicating the bar at the end of one line at the start of the next line). Apart from this one exception, this demonstrates that AMB was generally quite a reliable copyist.

The notes of VKellner in the Gavotte en Rondeau have different pitches or lengths in 8 bars compared to VJSB. The different readings in VKellner are mostly possible from harmonic and melodic points of view, except for one missing half bar in similar circumstances to that in VAMB (but in a different bar). As Kellner is unlikely to have introduced such changes himself, they suggest that Kellner was copying from a source that already contained these differences and that he simply copied the different readings reliably.

Apart from the missing half-bars in VAMB and VKellner, which are certainly copying errors, the other differences between the sources in the Gavotte en Rondeau are summarized in Table 12. The categories of difference are similar to those for the sources of BWV 1011, except for the additional bar category which only occurs in VKellner, in which bar 34 is almost exactly the same as bar 33, with just the last note changed, but the other sources do not have this duplicated bar:

BWV 1006, Gavotte en Rondeau, Bars 33-34

VKellner



Bar 34 occurs in the middle of a line in VKellner, so the duplication is probably not a copying error arising from confusion with the end of a line. As the bars are actually not identical, it seems unlikely to be a copying error, but more likely that both bars may have been present in the original source from which VKellner was derived.

Two issues arise in the Gavotte en Rondeau with conventions for accidentals, one concerning whether or not an accidental is repeated when the note to which it refers recurs at the same octave later in the same bar, and the other concerning the indication of a double sharp.

The first example of an issue with accidentals on repeated notes occurs in bar 10, where all of the sources for violin start with b^\sharp in the upper voice, but LVJSB has b^\sharp , as shown in the next example:

BWV 1006/1006a Gavotte en Rondeau, Bar 9-10

VJSB



LVJSB



From harmonic and melodic points of view, the first note of the upper voice in bar 10 should indeed be b^\sharp , bearing in mind that the last note of bar 9 is also b^\sharp , and that b^\sharp also occurs in bar 12. However, in all of the sources for violin discussed here the \sharp has been repeated on the second b in bar 9, but not on the first b of the next bar, probably because it is adjacent to the previous b^\sharp , even though there is a bar-line between. This is in fact an example of the Convention for accidentals on repeated notes which has been described in section 4.2. In LVJSB, written significantly later than the other violin manuscripts discussed here, Bach seems to have felt it necessary to indicate the \sharp explicitly at the start of bar 10 (therefore no longer following the Convention), perhaps to avoid any possible mis-interpretation.

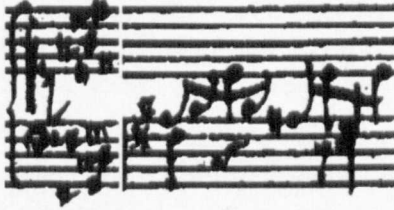
Another example where the Convention is not precisely followed occurs in all of the sources in bar 87 of the Gavotte en Rondeau, where the \sharp is only repeated on instances of the note which do not recur in the same beat.

BWV 1006/1006a Gavotte en Rondeau, Bar 87

VJSB



LVJSB



Examples of the representation of double sharps occur in bars 80, 81, and 87-91 of the Gavotte en Rondeau, where the sources for violin have apparently unnecessary \sharp symbols in front of several notes of pitch f^\sharp , f^\sharp , c^\sharp or c^\sharp , which are already sharpened by the key signature. In LVJSB these accidentals are given in each case with the symbol 'x' which we use today, as can be seen in the example on the second quaver of bar 80 shown below, showing

that Bach did indeed intend them all to be double sharps. However, in bar 79, the sources for violin also have an apparently unnecessary # before the second quaver, which is normally given as a double sharp in modern editions, but LVJSB has no accidental, which may be either an error or an indication that Bach did not intend the double sharp there. In bar 79, both a single sharp and a double sharp could make musical sense.

BWV 1006, *Gavotte en Rondeau*, Bars 78-80



VJSB



LVJSB

The fairly systematic change from use of an apparently unnecessary # symbol for notes which are already sharpened in the key signature in the sources for violin, indicating a double sharp, towards use of the x symbol in LVJSB demonstrates a change in the habits followed by Bach to indicate double sharps between the years 1720 and 1735-40. There are no double sharps in BWV 1011 or BWV 995, so this trend was not seen in the sources for these works.

The only rhythmic difference in the *Gavotte en Rondeau* in LVJSB compared to VJSB occurs in bar 77, where the upper note of the chord on the second crotchet has been delayed by a quaver, helping to maintain the moving quaver rhythm. There is no sharper dotting in any movement of LVJSB, as occurs in LCJSB (not even in the *Loure*, which might have been suitable for such treatment), suggesting that Bach may have moved away from this practice by the time that he produced LVJSB.

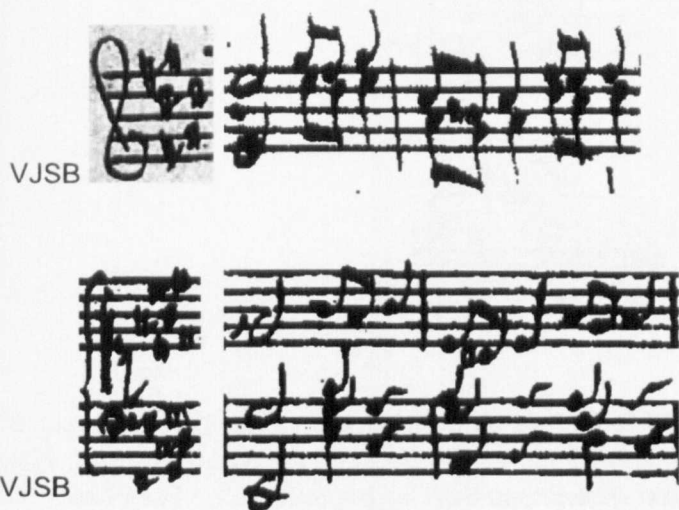
Just three bars were substantially changed in *Gavotte I* of BWV 1011 when LCJSB was derived from it, but more extensive changes were made to the *Gavotte en Rondeau* between VJSB and LVJSB, falling into the following categories:

- Improvements to the voice leading
- Changes to main motifs
- Simplification of some chord sequences to facilitate performance on the lute

The first two categories are also found in LCJSB, so they will not be discussed further here. The last category did not occur in LCJSB. An example occurs in bars 72-73 of the *Gavotte en Rondeau*, where the violinistic sequence of thirds in VJSB has been recomposed and

simplified in LVJSB into a pattern of 4-note chords and separate notes, probably to facilitate execution on the lute.

BWV 1006/1006a Gavotte en Rondeau, Bars 72-73



There are many differences in texture in LVJSB compared to the sources for violin, affecting 83 out of the 92 bars in the Gavotte en Rondeau, as can be seen from Table 12. The way in which the voices and the harmony have been filled out compared to VJSB is especially clear because the original version was for the violin, with a fairly continuous top voice, so the added notes in LVJSB occur mostly in the middle and lower voices.

Modifications to the texture on a similar scale are present in Gavotte I of LCJSB, where the texture has been modified in 35 of the 36 bars compared to the cello version (discussed further in section 4.5). However, in BWV 1011 the cello part contains more elements of the lower voices, so the filling out of the voices in LCJSB was more complicated in the lute transcription.

The texture seems to have been modified in LVJSB to provide a more continuous bass line and to introduce more resonance, and in nearly all cases the changes which have been made could not be played on the violin. The bass line has been improved by lengthening some of the bass notes and by the addition of extra notes in the bass, so that it becomes almost continuous throughout the movement. A consequence of the improved bass line and of the fuller chords is that more courses of the lute are made to ring simultaneously, thus generating a much larger sound (more resonance).

In Menuet I the notes of VAMB are identical to those of VJSB, but there are a few differences in VKellner and LVJSB. Two of the differences which occur in VKellner could be due to copying errors. In bar 21, there are six semiquavers in VKellner, which should be six quavers to make a full bar, while in bar 32 (illustrated below) VKellner indicates the first note as e', when it should surely be d# to form a dominant seventh, leading to the chord of E major at the end of the bar. Something has indeed been written under this note, perhaps because Kellner or someone else realised that the note should be d#.

BWV 1006/1006a Menuet I, Bars 31-32



Apart from the errors in VKellner and the minor differences in LVJSB, the significant differences in the notes between the sources for Menuet I are summarised in Table 13, where it can be seen that there are many fewer differences than for the Gavotte en Rondeau.

The only significant differences in LVJSB in Menuet I compared to VJSB concern the texture, which has been filled out in 12 of the 34 bars. The additional notes are not sufficient to form a new bass line throughout the movement, but they help to clarify the harmony and the voice leading, with several 4-note chords and one 5-note chord as the final chord of the movement in LVJSB, compared to the sources for violin where the chords are mostly limited to 3 notes, with just one 4-note chord in bar 14.

Perhaps the most interesting difference in the notes in the sources for Menuet I occurs in bar 23, illustrated in the next extracts.

BWV 1006/1006a Menuet I, Bar 23

This block contains four musical staves illustrating different versions of Bar 23. The top-left staff is labeled 'VJSB' and shows a treble clef with a key signature of one sharp. The top-right staff is labeled 'VAMB' and shows a different melodic line. The bottom-left staff is labeled 'VKellner' and shows a bass line. The bottom-right staff is labeled 'LVJSB' and shows a more complex texture with multiple voices. The notation is in a historical style with some ink bleed-through visible.

In VJSB bar 23 opens with a quaver in the upper voice and a crotchet in the lower voice, the latter note being drawn slightly to the right, perhaps to ensure that it would be seen as a separate voice. VAMB is basically the same, but includes a line at an angle which seems to connect these two notes and continues below the crotchet, forming a kind of extra tail to the note. This line may have been intended to indicate that the notes were to be played together. LVJSB seems to be exactly the same as VJSB.

VKellner, however, shows the crotchet even further to the right of the first quaver, with a tail which almost reaches the beaming of the quavers, and finishes the bar with two semi-quavers. Thus, in VKellner, it seems that the 'crotchet' has been interpreted as an extra quaver, and that the last two quavers have been changed into semi-quavers to ensure the correct number of beats in the bar, an interpretation which could make sense from a musical point of view. This may illustrate a misunderstanding on the part of Kellner, or a difference in the original source which he was copying.

Concerning conventions for accidentals, in Menuet I there are no notes with accidentals which are repeated in the same bar, so no opportunities to compare the conventions for this aspect. There are also no 'unnecessary' ♯ symbols which could indicate double sharps. The only minor issue which arises with the accidentals is in bar 31, where the sources for violin have a precautionary ♯ following the naturals of the previous two bars, but LVJSB has no ♯.

From the evidence discussed above derived from the sources of the Gavotte en Rondeau and Menuet I, it is difficult to agree with the Eichberg and Kohlhasse's assessment of LVJSB as 'simple and scholastic'¹. In making the transcription, Bach has:

Filled out the texture considerably, sometimes with a fairly complete bass line.

Added 15 appoggiaturas.

Filled out the chords to increase the resonance.

Made substantial changes in 14 bars of the Gavotte en Rondeau.

Introduced a new bass line in a way which is suitable for the lute (avoiding chromatic notes on the lower courses and notes below the normal lowest course tuned to A).

LVJSB has certainly been written with the technical limitations of the lute in mind to a greater extent than LCJSB, but this does not mean that the transcription is simple.

¹ Translated from *rein handwerks- und schulmässig gefertigt*, Eichberg, Hartwig and Kohlhasse, Thomas. 1982. p.166.

4.7 Conclusions about the notes

The evidence which has been found in this chapter relating to the origins and relative importance of the sources for BWV 1011 will be discussed in chapter 7. The other conclusions are summarised below, mostly concerning issues of performance practice in Bach's circle.

Accidentals

In the period when Bach wrote LCJSB and the original sources from which CAMB, CKellner, CBerlin and CVienna were derived (approximately 1715–1740), he usually intended (but occasionally omitted) to insert explicit accidentals before all occurrences of notes to be sharpened or flattened which were repeated in the same bar, unless they were pedal notes, or they were adjacent to a previous note having the same accidental, even when separated by a bar-line. Bach's copyists followed the same basic convention, but they were less consistent. Where exceptions occur, they are probably due to carelessness or confusion with other factors such as the use of Dorian key signatures or the use of scordatura. In some cases, the convention has been applied surprisingly rigorously, and has to be well understood in order to interpret the surviving sources correctly. CKellner has more exceptions to the convention than any of the other sources, suggesting either that Kellner himself was sometimes careless with his accidentals, or that the accidentals were already missing in the original source which he was copying.

When a previous accidental needed to be cancelled, Bach and his copyists often used the natural sign as we use it today, but occasionally they also followed the older convention of cancelling a sharp by a flat symbol.

CKellner shows remarkably consistent use of $b\sharp$ whenever $c\sharp$ has been written above the staff (sounding $b\flat$) in the scordatura sources. Kellner otherwise uses \sharp and \flat accidentals in the same way as the other copyists discussed here, throughout his copy of the Cello Suites. The special use of the $b\sharp$ suggests that Kellner was copying from an original source of BWV 1011 which was either in scordatura, and in his transposition to normal tuning he retained the \sharp signs without converting them to naturals, or already transposed by someone else back into normal tuning from scordatura, but with notes of pitch $b\flat$ written as $b\sharp$.

A fairly systematic change has been found in the habits followed by Bach to indicate double sharps between the years 1720 and 1735–40, passing from use of an additional \sharp symbol for notes which are already sharpened in the key signature, towards use of the x symbol commonly used today.

There is considerable confusion in all of the sources for BWV 1011 arising from the use (or not) of a Dorian key signature (which would have one flat fewer in the key signature than we are accustomed to seeing today). They all have the full number of flats in the key signature for C minor (lute G minor), except the Allemande in CBerlin which has a Dorian key signature, but they occasionally miss natural accidentals in front of notes of pitch A or a (lute e or e') where naturals would seem to be appropriate, especially in CKellner, indicating confusion in the minds of the copyists about how many flats there were in the key signature.

As these cases often occur in the same place in more than one source, the confusion was probably also in the original sources from which the copies were derived. This theory is supported by similar confusion which has been found in the autograph copy of Bach's Violin Solos. Where the sources for BWV 1011 differ in this respect, LCJSB most frequently

seems to offer the best alternative, while CAMB and CKellner do so the least frequently. From melodic and harmonic considerations, it seems that the version of bar 4 in the Allemande in Eppstein's edition may not be preferable.

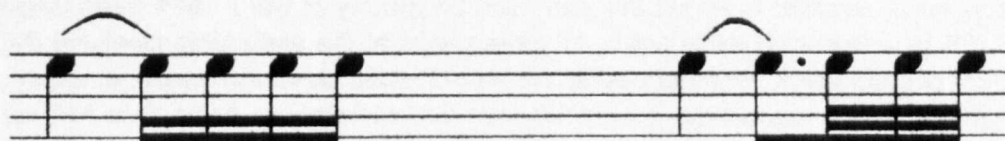
Rhythm

In the Allemande and the Courante, Bach's general intention seems to have been that the upbeats should be fairly short, but it was probably not expected that there would be mathematical correctness when combining the upbeat with the last bar of each section of each movement. A problem for Bach and his copyists was that the convention of notating double dots was not widespread at the time when Bach wrote his Cello Suites, so there was no simple notation for indicating a double-dotted crotchet at the end of each section of the Allemande to match a semiquaver upbeat, or a double-dotted minim at the end of each section of the Courante to match a quaver upbeat. They could have added a tied note at the end, or a rest as in the LTAB version of the first section of the Courante, but this would probably have seemed to be unnecessarily fussy.

Between the sources for cello of BWV 1011 there are very few differences in the sharpness of the dotting, with just a small number of bars having less dotting in CKellner than in the other sources.

However, in LCJSB, written in 1727-31, sharper dotting than in the equivalent bars in all of the sources for cello has been indicated in certain bars of the first part of the Prelude and the Allemande. This is most striking in the Allemande, where nine bars in the sources for cello which contain a crotchet tied to a semiquaver, followed by three more semiquavers, have been modified in LCJSB to a crotchet tied to a dotted quaver followed by three demisemiquavers.

In LCJSB, sharper dotting has been indicated in certain bars of the first part of the Prelude and the Allemande compared to the equivalent bars in all of the sources for cello. This is most striking in the Allemande, where nine bars in the cello sources which contain a crotchet tied to a semiquaver, followed by three more semiquavers, have been modified in LCJSB to a crotchet tied to a dotted quaver followed by three demisemiquavers, following the model illustrated below:



As in Cello Manuscripts

Sharper dotting in BWV 995

Similar sharper dotting has been introduced in the autograph copy of the French Overture BWV 831 (published in 1735) compared to the earlier copy by AMB. This suggests that Bach felt the need to indicate sharper dotting for certain figures in slow movements of the French Overture style from the late 1720's onwards. However, there does not seem to be any evidence of Bach sharpening the dotting in any of his works later than the mid-1730s.

There is no evidence in the sources discussed here of especially sharp dotting in figures consisting of a dotted crotchet followed by a quaver or of a dotted quaver followed by a semiquaver, and this is also the case in the manuscripts of the French Overture BWV 831. Grützbach and other scholars have proposed that every instance of a dotted note in slow movements of Bach's Cello Suites should be more sharply dotted than indicated by the written musical text¹, but this does not seem to be justified by the evidence found here.

When Bach sharpened the dotting, he was apparently not worried whether the lengths of the notes added up precisely to a beat. The main beat was probably expected to remain constant, but some flexibility was left to the performer to decide on the speed of the internal *fi-rate* figures within the beat. As with his upbeats, Bach could have indicated a sharper rhythm if he had wished to by the use of tied notes.

Arpeggiation of chords

Several chords in CKellner cannot practically be played as indicated on the cello, because they require two or more notes to be played simultaneously on the same string. They can only be played as arpeggios (i.e. with each note played separately but rapidly in turn), or as chords with one or more notes omitted. In view of Kellner's title of his manuscript 'Sechs Suonaten pour le Viola de Basso', there is a possibility that his manuscript was actually intended to be played on a bass viol, on which these chords would all be perfectly practical. However, some passages in the Cello Suites seem to be designed for an instrument tuned in fifths (unlike the viol), and evidence from Bach's Violin Solos suggests that arpeggiation of chords may have been normal practice for the violin, so this may have been applicable to the cello also.

Special features of LCJSB

LCJSB has been substantially changed compared to the sources for cello in many bars, suggesting that new thoughts occurred to Bach while he was making the transcription. Some of the changes are specific to lute technique and could not be re-transcribed into a version for performance on a cello, but some of them could be re-transcribed and could add extra interest to a performance on the cello, as has been done to a certain extent by Markevitch².

Bach apparently decided to fill out the very bare polyphony of BWV 1011 when transcribing into LCJSB by introducing extra notes, in some cases at the same time clarifying the linear movement of each voice. In most cases, the added notes serve the double function of adding extra weight and resonance to particular chords, while at the same time helping to reduce the fragmentation of some of the voices (especially the lower voices). In particular cases, the extra notes also introduce a new element of counterpoint.

The texture in LCJSB has been simplified compared to the sources for cello in a few bars, which may suggest that Bach sometimes felt that the texture was a little too heavy in the sources for cello, and that it needed to be simplified in order to allow the melody to emerge

¹ Grützbach, Erwin. 1993. pp.36-37.

² Markevitch, Dimitry. 2000.

more clearly and to give a lighter effect on the lute. It is possible that at least some of the extra notes were included in the sources for cello for the purely technical reason that the strings would be touched anyway by the bow in playing the outer notes, and that Bach preferred to omit them for LCJSB where the same technical limitation did not apply. This may be evidence that the Suite was not originally conceived for the cello.

5 Articulation

5.1 Introduction

The importance of articulation marks as an indication of contemporary performance practice has been emphasized by Butt in a remark which refers to Bach's autograph manuscripts, but is also applicable to copies which have been made of them¹:

The notated articulation is perhaps the closest evidence we have of how Bach himself interpreted his own music....., [limiting] the performer's choice of articulation by adding slurs and dots.

Composers may indicate articulation in their scores by a variety of notational symbols, including slurs, dots, dashes, wedges, dots under slurs, short rests between notes, etc., but in the sources for BWV 1011 the articulation marks are almost exclusively slurs, the only exceptions being just a few notes with dots in CBerlin, CVienna and LCJSB, in the Courante and Gavotte II. In the sources of Bach's other Cello Suites, articulation marks are also mainly confined to slurs, but there are some dots in the Gigue of the 1st Suite BWV 1007 in all of the sources (the dots being over different notes in each source), and in certain dance movements of the other Suites in CBerlin and CVienna, such as the Giges of Suites Nos. 2, 3 and 6, the Allemandes of Suites Nos. 3 and 4, and the Courante of Suite No. 3.

Considering for comparison some other works by Bach for bowed string instruments, neither VJSB nor the autograph score of the Brandenburg Concertos contains any articulation marks at all except for slurs, but in the autograph of the Gamba Sonata BWV 1027 (the only one of Bach's three Gamba Sonatas for which an autograph manuscript has survived) there are numerous dots in the gamba part.

The autograph sources of some of Bach's keyboard works have dots and other articulation indications, as discussed by Boe and Butt². For instance, in the fair copy of the Two-part and Three-part Inventions³, two of the inventions (the third and ninth two-part inventions) have a large number of slurs, three inventions have a few slurs, and a few inventions have notes with dots. On the title page of the Inventions, Bach introduces them by saying that they provide 'instruction wherewith amateurs of the clavier, in particular the ones avid to study, are shown a distinct manner to achieve a singing manner of playing...' ⁴, which seems to imply that even where a slur has not been written, a generally cantabile style was to be adopted by ensuring that the notes are not excessively short or detached. A similar pattern of occasional slurs and dots can be seen in the Italian Concerto and the French Overture in Clavier Übung II.

¹ Butt, John. 1990. p.207.

² Boe, John. 1976, and Butt, John. 1990. pp.115-117.

³ from the 'Klavierbüchlein für Wilhelm Friedemann Bach' now in the Music Library of Yale University in New Haven. USA.

⁴ translation by Simon, Eric. in the Dover facsimile of the manuscript, p.v.

The scarcity of articulation marks other than slurs in Bach's unaccompanied string works is probably an indication that staccato playing was not common on the violin and cello in Bach's time. This was perhaps partly due to the limited capabilities of the Baroque bow, of which the differences compared to the modern bow have been informally but accurately summarized by Tindemans¹:

One of the main differences is that a Baroque bow is either straight or it's curved the "other way." This makes a big difference in the balance of the bow. The other thing that's very different is that the tip is much lighter than the frog. With modern bows, this is still true to a certain extent, though modern bows are much more balanced. With really early bows, there's absolutely no way you can do any kind of bouncing stroke, because you'll bounce right off the string, since they are so imbalanced within themselves. But for the music that early bows are meant for, they work perfectly fine because you want that kind of natural decay in a note, and you make use of the fact that an up-bow is considerably different from a down-bow. The bow works really well for the music it's made for, which has a different aesthetic than Classical period or later music.

A slightly detached style is generally thought to have been usual in the Baroque period², with slurs inserted in particular places where a more legato style was required or appropriate, or where particular figures were to be emphasised. Butt notes that Bach tended to give more precise articulation indications in his later manuscripts³, including more frequent use of dots in an apparent attempt to lighten the style, but this refers to a period some years after Bach's works for unaccompanied violin and cello had been composed.

When comparisons are made here to the articulation signs in LCJSB and LVJSB, it must be borne in mind that the implications of slurs for the lute are different from those of slurs for bowed string instruments, owing to the different instrumental techniques involved. Slurring is generally more difficult on the lute than on the cello or violin, and a true slur is for most practical terms limited to adjacent notes on the same course, so it may be assumed that where Bach wrote a slur for the lute, he considered it to be sufficiently important to justify the extra difficulty of execution.

This chapter is organized mainly around a discussion of the articulation in each movement of BWV 1011, not around the Suite as a whole, because the articulation issues are strongly dependent on the character of the movements. Terminology introduced in the Preface will be used.

¹ Tindemans, Margriet. 1960.

² Discussed in the Preface to Wenzinger, A. 1950.

³ Butt, John. 1990. p.166.

5.2 Issues with the articulation

While many of the issues with the note pitches or note lengths in the sources of BWV 1011 can be resolved by comparing similar passages in each of the sources, or by analogy to other works by Bach in a similar style, it is more difficult to resolve the differences in the articulation marks because they are more numerous and more extensive than the differences in the notes. There is not often a clear majority in the sources for one slur rather than another (and even being in a majority may not be a valid indication of a correct representation of Bach's intentions because several of the sources might have been copied from a common source which did not have Bach's articulation marks), and it is not certain that analogies to other passages or to other works are truly applicable. The articulation issues which will be discussed here are:

1. Many of the slurs for equivalent passages in each source are different in length and/or position, and sometimes they appear to have been added in some haste, so that it is not clear exactly which notes are intended to be slurred. To what extent is it possible from the sources to deduce the articulation which Bach might actually have intended?
2. How different are the articulation marks in the sources for cello likely to be from those in the original sources from which they were copied? Were the copyists generally faithful to the original in copying the articulation marks, or did they introduce their own ideas or 'corrections' as they worked?
3. Can it be deduced from the sources whether Bach's intentions for articulation changed during his lifetime?
4. Did Bach intend consistency in his articulation, or did he prefer variety? In other words, is different articulation in parallel passages of the same source the result of careless copying, or a deliberate attempt to add variety? Was variety an intrinsic goal of performance practice in Bach's day?
5. Why does LCJSB contain some slurs extending for more than four notes and requiring use of more than one course, which seem difficult to execute on the lute and are not present in the sources for cello?
6. From the similarities and differences in the articulation marks given in the different sources, can we deduce any information about the relationships of the sources to the original(s) from which they were copied?

5.3 Discussion

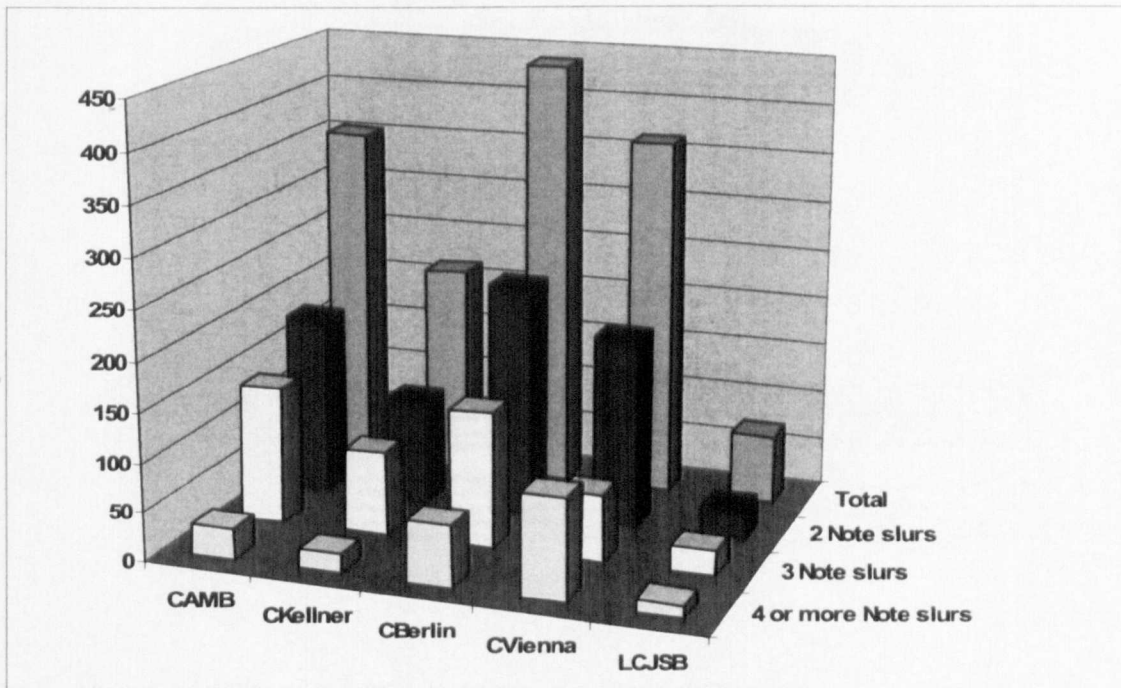
5.3.1 Overview

Of all the sources for BWV 1011, CBerlin has the greatest quantity of slurs of all types, CVienna and CAMB have slightly fewer, CKellner has only about half as many, and LCJSB much fewer, as can be seen in Figure 5-1. In LCJSB there are no slurs at all in Gavotte II or the Gigue.

In CKellner, the total quantity of slurs is influenced by the absence of the Sarabande and most of the Gigue, but there are generally fewer slurs than in the other sources for cello in every movement, and there are some slurs where the other sources have none.

In each of the sources for cello, about 50% of the slurs concern pairs of notes, but there are some significant differences in quantities of slurs concerning 3 notes or more. CBerlin has the most frequent slurs over 3 notes, CAMB also has many, and CVienna has relatively few. However, the total count of 3-note slurs in CVienna is slightly skewed by the slurring in Gavotte II, where the copyist has only indicated a few 3-note slurs at the start of each section of the movement, probably assuming that the performer would continue with the same slurring throughout. CVienna has the greatest quantity of slurs extending for than 3 notes, followed by CBerlin.

Figure 5-1 Total quantity of slurs in each of the sources for BWV 1011 (995), all movements



5.3.2 Prelude, first part (up to bar 26)

A first impression of some of the issues mentioned in section 5.2 in the first part of the Prelude can be obtained by comparing the first two bars in each of the available sources:

BWV 1011/995 Prelude, Bars 1-2

CAMB



CKellner



CBerlin



CVienna



LCJSB



In bar 1, all of the sources except CVienna have a long slur, and they all show the slur starting fairly clearly on the G, except CAMB, which leaves it unclear whether it starts on the G or the A \sharp . In bar 2, only CKellner shows the two small slurs in what we might expect to be their logical place, LCJSB has no slurs at all, and the other sources are all different and unclear.

In the first part of the Prelude, CKellner and CBerlin have the greatest quantity of slurs, their slurs are of similar lengths, and they have the same number of slurs over more than three notes, as can be seen in Table 14. CAMB and CVienna have slightly fewer slurs, with a slight tendency for longer slurs in CVienna. LCJSB has by far the fewest slurs; all of them are over more than three notes and one of them is actually over three bar-lines. In all of the sources, the most common slurs are over more than 3 notes in this movement.

Relatively long wavy slurs occur in bars 10, 21, 23 and 24 of all the sources for cello, and also in bars 1 and 17 of CAMB, bars 1, 17 and 22 of CKellner and CBerlin, and in bar 22 of

CVienna, but none of these slurs extends over a bar-line, and bar 25 is without slurs in all of the sources for cello. The four slurs which occur in LCJSB are all long and wavy, as follows:

Bar 1: over 11 semiquavers

Bar 17: over 11 semiquavers

Bar 21: over 11 semiquavers

Bars 22-25: over 59 semiquavers

In bar 10 of LCJSB, there are also 11 semiquavers after the initial tied semiquaver, and the rhythm is very similar to that of bars 1, 17 and 21, but there is no slur. This appears to have been an oversight by Bach, as he has been quite consistent elsewhere. In LTAB, some of the slurs in LCJSB have been broken down into shorter units.

The exceptionally long slur over 59 semiquavers in LCJSB is shown in the next extract. It starts rather curiously on the last semiquaver of the second beat in bar 22, and it is not completely clear where it is supposed to end, so the number of semiquavers to be slurred is only approximate:

BWV 995 Prelude, Bars 22-25



Similar very long wavy slurs occur in the manuscript sources of other works by Bach, such as the Prelude of the E \flat Major Cello Suite BWV 1010 (up to 38 notes). Butt suggests that these slurs indicate that the notes should not be played strictly in time, but as part of a long musical line without accents on smaller metric divisions¹, and Kramer suggests that there can be a rise and fall in dynamic level during such a long slur².

It seems likely that the slurs in the sources for cello are shorter than in LCJSB because shorter slurs suit the constraints of cello bowing technique, but this leaves one wondering why the copyists of the sources for cello inserted such very long slurs in BWV 1010 (apparently ignoring the limitations of bowing technique) and not in BWV 1011. A possible explanation might be that Bach may have changed his style of indicating long phrase marks in the

¹ Butt, John. 1990. p.33.

² Kramer, Laura. 1998. p.111.

interval between the original composition of these two Suites, which may have comprised several years.

5.3.3 Prelude, fugue part (from bar 27 to the end of the Prelude)

The main issues with the articulation in the Fugue arise from the large quantity of unclear slurs, especially in CAMB, and the inconsistencies of the slurs both between the sources and within each source. An overview of the slurs in the sources of the Fugue is given in Table 14, which shows that the total quantity of slurs is highest in CBerlin and CVienna, and that these sources also tend to have longer slurs than the others. CAMB has slightly fewer slurs, but still more than one hundred, CKellner has less than half the quantity of slurs than the other sources for cello, and LCJSB has very few slurs, which are mostly over only two notes.

A feature of the Fugue is that all of the sources have very few slurs in the opening section, with substantial slurring only starting from bar 68. The Fugue starts in bar 27 of the Prelude, but between there and bar 68, CAMB, CBerlin and CVienna have slurs in bars 32 and 35 only, while CKellner and LCJSB have none at all. However, in bars 42, 54 and 62 there could be considered to be implicit slurs in the sources for cello because of the longer notes in the lower voices to be sustained while the upper line continues, as shown in the next example:

BWV 1011 Prelude, Bar 42



In this example, if the two notes in the lower voice are played to their full length, then the notes above them must be played in the same bow, i.e. they are implicitly slurred (although some performers might choose not to hold the lower notes on for their indicated lengths).

As the slurs are so scarce in all of the surviving sources in the early part of the Fugue, it seems safe to assume that this was also the case in the original source(s) by Bach from which they were copied, and it suggests that Bach intended the motifs of the Fugue first to be stated as clearly as possible, without slurs, before re-using them later with slurs to add variety.

In none of the sources are the slurs truly self-consistent in similar passages. A typical example of inconsistencies in CAMB is shown in the next extract, in which the 3-note arpeggio at the start of each bar could have been slurred, but in fact there is only a slur in bar 95. Although this kind of inconsistency is often ascribed to AMB's careless copying¹, it is also pos-

¹ See for instance Beisswenger, Kirsten. 2000 (edition).

sible that she was trying to introduce variety into the articulation, perhaps on the suggestion of someone else (such as Schwanberg for whom she was producing the copy). CKellner and LCJSB have no slurs at all in these bars, but both CBerlin and CVienna have consistent slurs (only CBerlin is shown below).

BWV 1011 Prelude, Bars 94-96



Despite the general lack of consistency, two trends seem to emerge in the sources for cello:

1. The slurs are quite short throughout the Fugue, with slurs over 2 notes being the most common, providing metric accents and emphasizing the division between contrapuntal voices. For instance, passages with string alternation between pairs of notes often employ slurs in the sources for cello, e.g. bars 82-86, where the 2-note slurs place the original notes of the subject at the beginning of the slur, while the second or ornamental note is connected on the same bow stroke, so that the bow changes emphasize the main motif and de-emphasize the ornamental notes. This is shown in the next example, where the lower notes of the slurred pairs form one of the main motifs of the fugue:

BWV 1011 Prelude, Bars 82-83



2. Arpeggiated chords are often slurred together, e.g. the first three notes of bar 95 in CMB, CBerlin and CVienna, as illustrated above.

Another inconsistency arises in CMB at bars 73, 75, 81, 83 and 87, which all contain the messanza motif of the fugue (conjunct three-note figure followed by a leap of a third) in the

last four semiquavers of each bar¹. None of the sources have slurs in these bars, except for bar 83 of CAMB, where the slurs raise some interesting issues:

BWV 1011 Prelude, Bar 83



These slurs apparently link semiquavers 2 and 3, and semiquavers 4 and 5, which works out comfortably for the player because it allows both this bar and the next to start on the same bow (probably most performers would use a down-bow), but they are across the beat and would actually tend to obscure the messanza motif. The other sources cannot be used as a reference as they do not have slurs in bar 83, so we cannot know whether these slurs came from Bach himself. They may have been added by AMB in another attempt to add variety compared to the other occurrences of the same motif (similar to the instance in bar 95 discussed above).


It is curious that neither of the first two slurs in LCJSB, which occur in bars 92 and 101, correspond to slurs in any of the sources for cello, as shown in the next extracts:


BWV 1011/995 Prelude, Bars 92-93




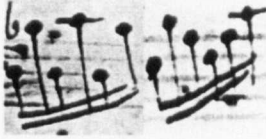
¹ Articulation of messanza motifs is further discussed in Butt, John. 1990. p.117.


BWV 1011/995 Prelude, Bars 100-101

CAMB 

CKellner 

CBerlin 

CVienna 

LCJSB 

Both of these slurs in LCJSB are over 3-5 notes and include intervals greater than a second, but it seems that they are not too difficult to execute on the lute if the performer makes use of the open strings to simulate a legato style¹. The fact that they are the first slurs in the fugue section in LCJSB, and that they are different from the slurs in the sources for cello, suggests that they had some importance for Bach, even though it is difficult to understand them now. This will be discussed further in section 7.3.

CKellner is the only source which has slurs over the bar-lines between bars 110-111 and 138-139. However, in both of these cases it looks as though the slurs have been hastily and inaccurately drawn, and it seems likely that Kellner really intended them to go over the last four semiquavers of bars 110 and 138 respectively, and not over the bar-lines:

BWV 1011 Prelude



CKellner Bars 110-111



CKellner Bars 138-139

¹ Advice received during a supervision by Dr.Tim Crawford of Goldsmiths College, London, 27 Oct. 2008.

A similar slur apparently shifted to the right and across the beat occurs in bar 33 of the Allemande in CKellner, but in this case it does not go over a bar line (this slur will be discussed in section 5.3.4).

In bars such as 110, 114, 138, 142, 146, 171 and 209 there is a long note to be sustained for the whole bar while four semiquavers are played in a higher or lower voice. To our modern understanding of this notation, this would imply that the whole bar should be played in the same bow on the cello, although this is not shown clearly in the slurring of any of the sources for cello (see, for instance the discussion above of bar 110 in CKellner). In bar 114, the slurring even shows the semiquavers slurred in pairs in all of the sources for cello (but without slurs in LCJSB):

BWV 1011 Prelude, Bars 114-115



CAMB



CBerlin

The slurs in bar 114 in the above examples might be interpreted to imply that the long held note should in fact be played as three separate quavers. As bar 114 is identical in all of the sources for cello in this respect, it was probably also like this in the original source(s) from which they were copied. This might simply have been an error by Bach, but it is also possible that it was intended to indicate that the finger which plays the first note of the bar should be held down (allowing the note to continue to ring) throughout the bar, while the other notes are played on the string above with the indicated slurring, and this seems to be the most likely explanation.

The slurs shown above in bar 115 of CAMB are similar to those illustrated in the previous example from bar 82, linking the second and third semiquavers and the third and fourth semiquavers across the beat. As this occurs more than once, but only in CAMB, it adds some strength to the argument that in this copy a special attempt was being made to increase the variety of articulation.

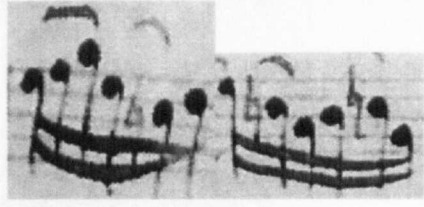
CBerlin has a slur across the bar-line between bars 134 and 135 which is not present in the other sources (LCJSB has no slurs here), illustrated below. The slurs are different in all of the sources in these bars. In CAMB and CKellner it is difficult to understand what slurring is intended. CVienna seems to be relatively clear. In CBerlin, it is possible that the copyist actually intended to include the preceding e^{\sharp} under the slur across the bar-line, making a 3-note slur similar to the preceding and following slurs, which would make musical sense but would produce quite a different musical effect. Both NBA-cello1 and NBA-cello2 suggest these 3-note slurs, even though none of the sources actually have them consistently, but Wenzinger suggests other options (which are also unlike all of the sources).

BWV 1011 Prelude, Bars 134-135

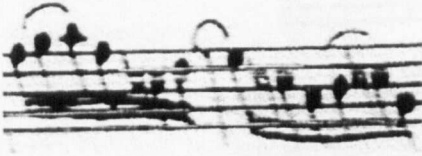
CAMB



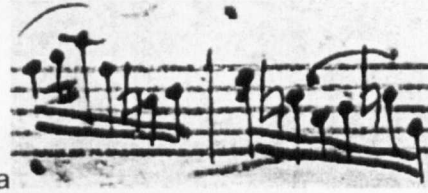
CKellner



CBerlin



CVienna



In bar 142, which is similar to bar 114, the problem of sustaining the first note while the following semiquavers are slurred in pairs seems to have been recognized, because all of the sources for cello have the first note of the bar abbreviated to a quaver or a dotted quaver instead of a dotted crotchet, although the indicated slurring varies in each source (again, LCJSB has no slurs here). As all of the sources for cello have this abbreviated note, the same notation was probably present in the original source(s) from which they were derived. An abbreviated first note like this only occurs in bar 142, although the same issue of a sustained note while other shorter notes arises in several other bars.

BWV 1011 Prelude, Bars 142-143

CAMB



CKellner



CBerlin



CVienna



In bars 167-170, where the notes are identical apart from the first semiquaver of each bar, CAMB has a slightly unusual slurring over semiquavers 3-5 which is consistent across all four bars, and quite precisely written, so it seems to have been drawn with deliberation. CBerlin is also consistent, if one assumes that all of the slurs were intended to be over the last three notes of each bar, but it is different from CAMB. CVienna also give slurs in these bars, but they are inconsistent, and there are no slurs in CKellner or LCJSB. Kramer specu-

lates that the written slurs are probably intended to be over the semiquavers 2-6 of each of these bars¹, and this is indeed how they are given by Eppstein and most modern editions.

BWV 1011 Prelude Bars, 167-170

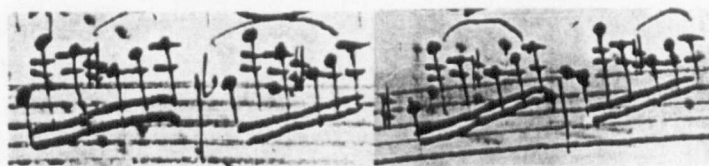
CAMB



CBerlin



CVienna



NBA



Butt mentions that the slurring pattern indicated here in CAMB is rare in Bach autograph sources², but in fact it occurs in several passages in Bach's autograph copy of the Violin Solos, such as in the next examples:

BWV 1001 Presto, Bars 12-16



BWV 1002 Corrente, Bar 9



¹ Kramer, Laura. 1998. p.105.

² Butt, John. 1990. p.105.

Thus, CAMB's slurring was within Bach's range of slurring patterns in the Köthen period, even if comparatively rarely used. The assumption that this slurring in the Prelude of BWV 1011 should be 1+5, as indicated by Eppstein and most modern editions, is inconsistent with all of the available sources. It seems more likely that the slurs indicated consistently in CAMB or in CBerlin may be close to Bach's intentions, if he intended slurs at all, and that to play these bars without slurs as shown in CKellner and LCJSB would also be justifiable.

Bars 172-174 are so similar that consistent articulation might be expected, but in fact the slurring in all of the sources for cello is inconsistent both within each source and between the sources, with only bar 174 having the same slurring in all of the sources for cello (in CKellner it is very faint). In bars 172 and 174, the quaver G in the bass (third string played open) cannot imply a slur for the first two semiquavers in the upper voice because the second semiquaver is to be played on the open top string. LCJSB has no slurs in these bars, so is not shown in the example below.

BWV 1011 Prelude, Bars 172-174

CAMB		CKellner	
CBerlin		CVienna	

Among the cello sources it is difficult to find a consistent articulation pattern in any movement for similar groups of six semiquavers starting with a rising arpeggio, but in Bach's autograph copy of the Violin Sonata BWV 1001 Presto and the Violin Partita BWV 1004 Gigue there are numerous similar note patterns, having the slurs quite consistently under the first 3 notes of each group, and the last three notes of the group nearly always detached. This may well be a good choice, therefore, for the slurring in bars 172-174 of the Prelude of BWV 1011, and this is indeed the choice which has been made in NBA_cello1 and NBA_cello2.

CAMB, CBerlin and CVienna all appear to have the first slur in bars 190 and 192 shifted to the right, so that the identical-pitch second and third semiquavers in the bar are apparently to be played in the same bow (which seems to be highly unlikely). Both the presence of two other slurs in these bars, and the more logical slurs given in LCJSB, show that normal slurring of the semiquavers in pairs, on the beat, was almost certainly intended (CKellner is not shown here because it does not have any slurs in these bars).

BWV 1011/995 Prelude, Bars 190-192

The image displays four musical extracts from the BWV 1011/995 Prelude, Bars 190-192, arranged in a 2x2 grid. Each extract shows a different edition's interpretation of the slurs in this passage. The top-left extract is labeled 'CAMB' and shows a single slur covering three notes. The top-right extract is labeled 'CBerlin' and also shows a single slur covering three notes. The bottom-left extract is labeled 'CVienna' and shows two separate slurs, each covering two notes. The bottom-right extract is labeled 'LCJSB' and shows no slurs at all, with the notes clearly articulated. The extracts are in a single system, likely for a cello, and show a melodic line with various note values and slurs.

In bar 191 of the extracts shown above, further examples of inconsistencies can be seen, with CAMB and CBerlin having a similar 3-note slur, CVienna having a 2-note slur and LCJSB having no slurs, like CKellner (not shown above). Similar inconsistencies and unclear slurring indications persist in all of the sources for cello for the remainder of the movement, but will not be listed further here because the issues are similar to those already shown by the extracts above.

Slurs over the bar-lines occur between bars 220-221 and 221-222 in CAMB, CBerlin and CVienna, but not in CKellner or LCJSB. As with the slurs in CKellner across the bar-line between bars 110-111 and bars 138-139, discussed above, the slurs here in CAMB, CBerlin and CVienna are rather messy and it is not clear if syncopation is really intended. For instance, in CBerlin the last quaver of bar 220 appears to be slurred both to the note before and to the note after, while the slur over the bar-line looks as though it has actually been shifted to the left from the first two notes of bar 221. It is possible that CKellner and LCJSB are the only sources which show the slurs for these bars as Bach originally intended them. Nevertheless, Eppstein and most modern editions indicate the slurs over the bar-lines here. A possible justification for Eppstein's slurs here might be that they emphasize the written-out appoggiaturas, although the sources do not appear to support this.

BWV 1011/995 Prelude, Bars 220-222

The image displays six musical staves, each representing a different source of the BWV 1011/995 Prelude, Bars 220-222. The sources are arranged in three rows and two columns. The first row contains CAMB (left) and CKellner (right). The second row contains CBerlin (left) and CVienna (right). The third row contains LCJSB (left) and NBA (right). Each staff shows the musical notation for these bars, with various slurs and articulation marks. The NBA source is notably darker and less legible than the others.

5.3.4 Allemande

As with the Prelude, the slurs in all of the sources of the Allemande are sometimes unclear and show a lack of consistency in similar passages. CVienna and CBerlin have the greatest quantity of slurs, as can be seen in Table 14, while CAMB has significantly fewer, and CKellner only has about half the number of slurs in CVienna and CBerlin. LCJSB has fewer slurs than any of the sources for cello, and it has no slurs at all until bar 13.

There are also significant differences and trends concerning the lengths of the slurs. CBerlin has the greatest quantity of 2-note slurs, CVienna, CBerlin and CAMB have about the same quantity of 3-note slurs (significantly more than CKellner and LCJSB), and CVienna has by far the greatest quantity of long slurs, perhaps because this copyist took the most trouble to draw his slurs to their full extent. In the case of CBerlin, a few of the 2-note slurs may actually have been intended to be 3- or even 4-note slurs, as will be shown in some examples below.

Some of the 2-note slurs are associated with ornaments, linking the ornamented note either to the preceding note or the following note, but this only occurs once in CBerlin, CVienna and CKellner, three times in LCJSB and not at all in CAMB.

Why is the articulation in each of the sources of the Allemande so varied, when it is much more similar in the other movements? Some of the variances are probably just because the copyists occasionally drew their slurs rather shorter than they perhaps intended, but also the slow tempo and the comparatively complex rhythms of the Allemande may have given rise to a wider range of interpretation than the other movements. In any case, it seems that in this movement the copyists have treated the articulation signs more freely than in other movements, perhaps taking suggestions from contemporary performers and not necessarily following the indications which may have been provided by Bach himself.

The first example of interest occurs in bar 1, where the last crotchet beat includes a crotchet in the lower voice, suggesting that the upper voice should also be slurred in a performance on the cello in order to give the crotchet its full value¹:

BWV 1011 Allemande, Bar 1

	V Π VΠVΠVΠV		V Π VΠV ΠVΠV
			
CAMB		CKellner	
	V Π VΠ VΠV		V Π V ΠV
			
CBerlin		CVienna	

If the slur in CBerlin in bar 1 is taken literally as a 2-note bowing mark, and if the last crotchet beat is slurred because of the crotchet in the lower voice (implied slurring), then this bowing actually works out quite well, leading to a down-bow at the start of the next bar. The bowing given in CVienna is different, but also works out well as long as the last crotchet beat is slurred. Neither CAMB nor CKellner has a slur in this bar, and this only works out with a down-bow at the start of the next bar if the last crotchet beat is not slurred. Thus, it seems that in CAMB and CKellner there may have been an assumption that the last crotchet beat would not be slurred, while in CBerlin and CVienna there seems to have been the opposite assumption.

Typical examples of the inconsistencies between the sources, and lack of clarity, are provided by bars 3 and 4 (LCJSB has no slurs at all here, so is not shown):

¹ In this and some other examples later in this chapter, up-bow and down-bow marks according to modern conventions have been inserted to facilitate the discussion in the next paragraph. There are no up-bow or down-bow marks in the original sources.





BWV 1011 Allemande, Bars 3-4

CAMB	
CKellner	
CBerlin	
CVienna	

At the end of bar 3 in the above examples, the group of four semiquavers has a slur over all four notes in CVienna, and possibly in CBerlin, while the slur seems only to apply to the last three semiquavers in CAMB and CKellner. In bar 4, the first group of four semiquavers is only slurred in CKellner, with a slur under the last three semiquavers, while the last group of four semiquavers has a slur over the first three semiquavers in CAMB, no slur in CKellner, and a short slur over only the middle two semiquavers in CBerlin and CVienna.

In bar 9, several slurring issues arise (LCJSB has no slurs in this bar):

BWV 1011 Allemande, Bar 9

CAMB		CKellner	
CBerlin		CVienna	

CAMB is the only copy to have a 2-note slur within the second crotchet beat, although it is probably the most logical way to ensure a comfortable down-bow at the start of the third crotchet beat, so this suggests that care was taken in producing CAMB to facilitate performance on the cello. On the third crotchet beat, CVienna has a slur which seems to be over all four semiquavers, while the slur in CBerlin seems to be over only two or three notes, al-

though it may have been intended to be over the full group of four semiquavers. Over the last crotchet of the bar, CAMB has a 2-note slur (where a 3-note slur might have been more logical to lead to a down-bow at the start of the next bar), CKellner has a long slur shifted to the right, CBerlin has a 3-note slur and CVienna has a full 4-note slur. The slurs in CAMB seem to be the most practical for this bar, if it is assumed that the slur over the fourth beat was intended to be over three notes.

In bar 10, where LCJSB also has no slurs, the sources for cello all differ in their treatment of the long slurs, as shown in the next examples:

BWV 1011 Allemande, Bar 10

CAMB		CKellner	
CBerlin		CVienna	

In CAMB, the initial descending scale is divided into a 3-note slur and a 4-note slur, while one 7-note slur encompasses the whole scale in CKellner. In CBerlin and CVienna, the long slur has shifted to cover the eight semiquavers of the last two crotchet beats, while CVienna also has a 3-note slur under the first three semiquavers (and there is a very faint mark under the same semiquavers in CBerlin which may be intended to be a slur). The next bar starts with a chord, which must surely be taken with a down-bow, but only the slurring in CKellner ensures this, so it seems to be the best option for a performance.

Bar 13 is the first bar in the Allemande where LCJSB shows a slur, occurring between the third and fourth crotchet beats, and in this case only CKellner amongst the sources for cello has an identical slur (but a trill on a different note):

BWV 1011/995 Allemande, Bar 13

CMB		CKellner	
CBerlin		CVienna	

LCJSB

CBerlin and CVienna have a slur linking the whole of the third and fourth beats, which is not in any of the other sources. It is possible that the slurs before the trill in LCJSB, CBerlin and CVienna are meant to indicate that the G is a long '*vorschlag*' to the trill, and should not be repeated, but this would not apply to CKellner where the trill occurs on the G itself. It would be convenient for the performer to start the next bar with a down-bow, which is possible with the slurring shown in CMB here, and in CKellner if it is assumed that the last two demi-semiquavers of the bar should be slurred. However, the slurs in CBerlin and CVienna seem to be less comfortable for the performer and do not allow a down-bow at the start of the next bar.

In bar 25, the copyist of CVienna has apparently made a correction to the slurring, lengthening the slur between the first and second beats:


BWV 1011 Allemande, Bar 25

CMB	<p>π v π v π v π v</p>	CKellner	<p>π v π v π v π v π v</p>
CBerlin	<p>π v π v π v π v π v</p>	CVienna	<p>π v π v π v π v</p>


The longer slur introduced in C*Vienna* here does work out quite well on the cello, as do the slurs in C*Berlin*, because they both result in a down-bow for the start of the third crotchet beat and at the start of the next bar. The slurs in C*AMB* and C*Kellner* only work out well if the whole of the first crotchet beat is assumed to be slurred together (as in the bowing marks which are shown above). Thus, there is a subtle difference of understanding between the copyists about the function of the two demisemiquavers at the end of the first crotchet beat: in C*AMB* and C*Kellner* they have apparently been considered as slurred to the previous dotted quaver, while in C*Berlin* and C*Vienna* they have been considered as separated, and in C*Vienna* they are even interpreted as a kind of ornament leading into the second crotchet beat (a similar conclusion was derived from bar 1 of the *Allemande*, discussed above).

The longest slur in the *Allemande* of LCJSB occurs in bar 33. All of the sources have slurs in this bar, but the slur in LCJSB covers at least eight semiquavers, and may possibly be intended to cover twelve, which is much longer than the slurs in any of the sources for cello:


BWV 1011/995 *Allemande*, Bar 33




CAMB




CKellner



CBerlin



CVienna




LCJSB


This long slur may indicate Bach's phrasing intentions, while the slurs in the sources for cello may have been shortened to facilitate the bowing. The slur in C*Kellner* in this bar appears to have been shifted to the right by two semiquavers, in a similar way to the slurs already mentioned in bar 9 of the *Allemande* and in bars 110-111 and 138-139 of the *Prelude*.

Bar 35 has no slurs in any of the sources, although by analogy to bar 34 and other bars, some slurs might have been expected, at least over the group of four semiquavers:


BWV 1011/995 Allemande, Bars 34-35



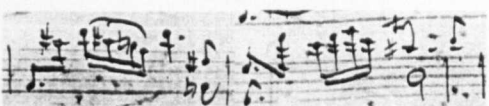
CAMB



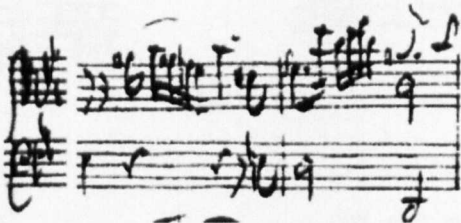
CKellner



CBerlin



CVienna



LCJSB

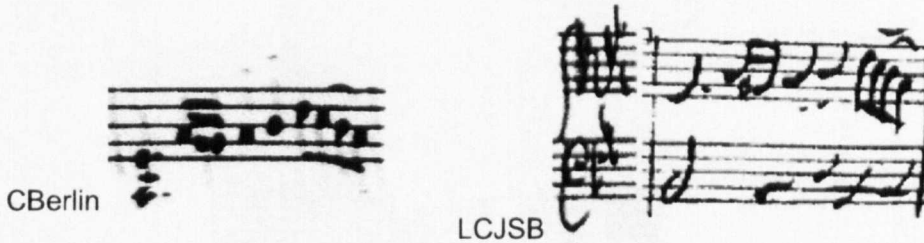
In bar 35 of CAMB, the staff has been drawn rather close to the staff above, so AMB did not really have the space to write a slur, and indeed the slur under the upper staff touches the notes of bar 35. However, as none of the other copies has a slur in bar 35, it can probably be concluded that this bar had no slurs in the original sources from which the copies were derived.

It can also be seen in the above examples that the copyist of CVienna has revised the slur in bar 34 over the second crotchet beat (as also in bar 25). The slur appears to have been originally over semiquavers 2-4 (as in CAMB and CBerlin), but the copyist has extended it to cover all four semiquavers of the beat. The extension actually makes it more awkward to play, leading to an up-bow on the next dotted crotchet, so this could be evidence that the copyist of CVienna was not a string player.

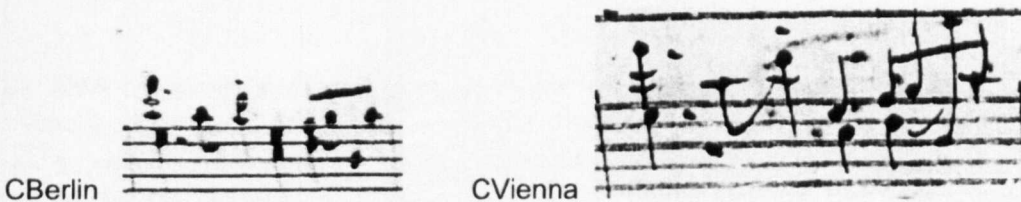
5.3.5 Courante

The Courante and Gavotte II are the only movements of BWV 1011 in which some of the sources have dots as well as slurs. In the Courante, the dots occur only in bars 3 and 20, and only in the sources shown in the next extracts:

BWV 1011/995 Courante, Bar 3



BWV 1011/995 Courante, Bar 20



In bar 3, both CBerlin and LCJSB have dots over or under the crotchets of the second minim beat. The two dots in LCJSB are especially significant as they are in an autograph manuscript which can be presumed to represent Bach's intentions accurately. In bar 20, both CBerlin and CVienna have a dot over the first crotchet of the second minim beat.

The dots in both bars may simply have been intended to indicate that the crotchets should be played detached, but Ledbetter speculates that they may have been intended to emphasize that the crotchets in both bars should be played with equal length, i.e. not as *notes inegales*¹. This is certainly possible, but in other bars of the same movement there are also two crotchets within a minim beat but without dots in any of the sources. In any case, these very few examples are insufficient to draw definitive conclusions.

The differences between the quantities and lengths of the slurs in the sources for the Courante follow similar patterns to those of the Allemande, reflecting the similar overall tempo and style of the two movements. CVienna and CBerlin have the greatest quantity of slurs, with CAMB having slightly fewer, and CKellner and LCJSB having less than half the number of slurs in CVienna and CBerlin, as can be seen in Table 14. CAMB has the most numerous 2-note slurs and 3-note slurs, but no slurs of more than 3 notes. CVienna has the most numerous slurs extending for more than 3 notes.

¹ Ledbetter, David. 2009. p.222.

The main principle of the slurring in the sources for cello of the Courante is that most of the groups of four quavers have some kind of slur, which is usually over all four notes of the group in CVienna, but is often shorter in the other sources. Although CAMB has shorter slurs, they generally work out so that the following chords come on a down-bow, which is the most comfortable way to play them on the cello, so this suggests that they are deliberately shorter and have not just been carelessly drawn.

In LCJSB, only about one third of the groups of four quavers have slurs, and none of these slurs precisely covers all four notes of the group. Apart from the small slur in bar 2, which joins the appoggiatura to the following note on the third minim beat, the first slur in LCJSB occurs in bar 3, and it is perhaps strange that there are not more slurs in bars 1 and 2, especially in bar 2 where the same three descending quavers occur as at the end of bar 3, so there can be no technical reason why they should not be slurred in bar 2 as well:

BWV 995 Courante, Bars 1-3



The apparently deliberate delay in introducing slurs in LCJSB is even more pronounced in some of the other movements, and will be discussed more fully later in this chapter.

Although it only has one long slur in the Courante, LCJSB has the longest slur of all the sources in this movement, actually extending over five notes in bar 5, but possibly intended to imply a slur over all of the last eight quavers of the bar:

BWV 1011/995 Courante, Bar 5

CAMB



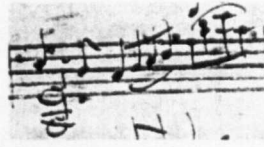
CKellner



CBerlin



CVienna



LCJSB



As with the long slurs in the Prelude and Allemande of LCJSB, the long slur in bar 5 of the Courante seems to be more typical of keyboard technique. CKellner has no slur, but CVienna indicates that the quavers should be slurred in groups of four only, perhaps because this would lead to a comfortable down-bow at the start of the next bar. The slurs in CBerlin may also be intended to be over/under four notes each, but in CAMB the first slur of the bar appears to be very deliberately under three notes only¹, and the second slur seems to be over just two notes, which would not be so comfortable for the performer (leading to an up-bow at the start of the next bar).

In addition to the slurs which are given explicitly in the sources for cello, there are several bars where slurring might be implied by the double-stopping. For instance, in bars 4, 5 (shown above) and 11, the minims in the lower voice might imply that the dotted crotchet and quaver in the upper voice should be slurred, while in bars 9, 20 and 23 (second crotchet beat) the crotchets in the bass imply slurring for the quavers in the upper voice. In the case of bar 20, the slurs are given explicitly in CBerlin, CVienna and LCJSB, as shown in the example at the start of this section.

In all of the sources for cello, evidence that the lengths of the notes in the lower voice have been carefully considered with regard to the practicality of playing them is provided in bars 9, 15, 17, 21, 22 and the last beat of bar 23, where the lower notes have been shortened because the technique of the cello would not allow them to be sustained while the upper voice is played. A good example of this occurs on the first beat of bar 9, where the lower voice is a quaver because it can only be played simultaneously with the first note in the upper voice,

¹ In this bar in CAMB, the second beat should be written as quavers, as in the other copies. This error was discussed in section 4.3.2.

and must then be stopped by the following *f* on the same string, while in LCJSB the lowest note is a full minim because there is no particular technical limitation on the lute to the length of the note:

BWV 1011/995 Courante, Bar 9

The image displays five musical staves for Bar 9 of the Courante in BWV 1011/995. The staves are labeled as follows:

- CAMB**: Shows a full minim note in the lower voice.
- CKellner**: Shows a shortened note in the lower voice.
- CBerlin**: Shows a shortened note in the lower voice.
- CVienna**: Shows a shortened note in the lower voice.
- LCJSB**: Shows a full minim note in the lower voice.

As these shortened notes in the lower voice appear in all of the copies for cello, they were probably present in all of the original sources from which the copies were derived, therefore they probably originate from Bach himself and demonstrate that he had a good knowledge of cello technique.

5.3.6 Sarabande

Bach wrote many different styles of Sarabande, and indeed wrote more Sarabandes than any other kind of dance. Although it is generally accepted that a common characteristic of a Sarabande is that the second beat of a Sarabande should be slightly accented¹, in this Sarabande the notes are mainly regular quavers, with occasional crotchets on the third beat of the bar, so there is no natural rhythmical accent on the second beat, and an issue for performance is whether or not to arrange the articulation to accentuate it.

For instance, if most of the quavers are slurred in pairs, then the three beats are clearly separated and the accents fall naturally on the first, third and fifth notes of each bar, more or less equally, although the performer can quite easily increase the accent on the second beat with this slurring if he so wishes. On the other hand, if the first four quavers of each bar are slurred as a group of four, the effect of the written-out appoggiatura leading to the fourth note of each bar is perhaps clearer but it is more difficult to accentuate the second beat.

¹ An authoritative discussion of this is provided in Little, Meredith and Jenne, Natalie. 1991. pp.97-102.

There is no copy of this movement in CKellner, but of the other sources CBerlin and CVienna have the most slurs in the Sarabande, CAMB has only about half as many, and LCJSB has still fewer, as can be seen in Table 14. There are also large differences in slur lengths. The slurs in CBerlin and CVienna are almost entirely over only two notes, those in CAMB are distributed more equally between two-note slurs and longer slurs, and in LCJSB there are no two-note slurs at all and almost all of the slurs are over three notes.

As the movement is short and the slurring issue appears to be quite important, the whole movement as given in CAMB is shown in the following extract:

BWV 1011 Sarabande (complete) as given in CAMB

π ν π ν π ν π ν π ν π ν π ν π ν



If the performer plays this Sarabande with a bowing which follows the slurs indicated in CAMB quite literally, it actually works out well, and a great deal of variety is introduced. Some bowing marks have been inserted for the first line of the above example to illustrate how they lead to down-bows at the start of bars 5 and 6, which most cellists would regard as convenient.

After bar 1, both CBerlin and CVienna generally indicate that the quavers should be slurred in pairs, as shown below in the example of bar 5, the only exception being a 4-note slur in bar 16 of CBerlin. However, while CAMB often indicates the third beat to be slurred in pairs where it consists of two quavers, within the first 2 beats of each bar CAMB usually has just one small slur like the slur shown in bar 3 above, over two or three quavers, and whether or not these slurs were actually intended to encompass all of the first four quavers of the bar is a matter of conjecture. CAMB has clear 4-quaver slurs in bars 5 and 6 only, in each case over quavers 1-4, and in bars 1 and 7 the first slur in CAMB may also have been intended to be over four notes although it has been drawn rather shorter.

In LCJSB, the slurs are mostly over quavers 2-4 of each bar, i.e. the first group of four quavers in each bar is generally slurred 1+3. Where the bar ends with two quavers, they are never slurred in LCJSB, in contrast to the other sources. Only in bar 15 does LCJSB have a clear slur over 4 quavers, although in bar 5 shown below the slur could be interpreted as being over four quavers, but then it would be over quavers 2-5 (shifted to the right by one quaver compared to the slur for this bar in CAMB):

BWV 1011/995 Sarabande, Bar 5

CAMB		CBerlin	
CVienna		LCJSB	

The slurs in LCJSB are generally not over adjacent notes, so they cannot easily be executed as true slurs on the lute.

In *NBA_cello1* the first four quavers of each bar are slurred consistently in groups of four, while in *NBA_cello2* they are slurred consistently in pairs, and all modern editions seem to follow one or the other of these options. Slurring in pairs can be justified if CBerlin or CVienna are taken as the authoritative sources, but the evidence hardly supports consistent slurring over four notes, unless one assumes that many of the 2- or 3-note slurs in CAMB and LCJSB are simply written very much shorter than their intended lengths. This is a common assumption amongst most scholars, as for instance:

The somewhat short slurs in AMB's copy are confirmed as four-note slurs by those in Bach's lute transcription.¹

This assumption seems difficult to justify when CAMB and LCJSB are carefully studied. For instance, the slurs in bar 3 of both sources, shown below, do not look as though they were ever intended to apply to the first four quavers of the bar. Furthermore, LCJSB actually has only one slur over four notes, in bar 15 as discussed above, where the slur does not correspond to the slurs in any of the other sources.

¹ Kramer, Laura. 1998. p.117.

BWV 1011/995 Sarabande, Bar 3

Perhaps surprisingly, there appear to be no editions which reproduce the many 3-note slurs in CAMB and LCJSB literally. The 3-note slurs are always replaced by 2- or 4-note slurs, although 3-note slurs would seem to be perfectly possible from a musical and practical point of view. For instance, Leisinger has opted for slurring the quavers in pairs like CBerlin and CVienna, but with a footnote to say that the editor has assumed that the short 2- or 3-note slurs in CAMB were all actually intended to be over four notes, an assumption which cannot be justified on the available evidence.

Eppstein and most modern editions suggest a fully consistent slurring of the quavers in pairs or groups of four, it seems that the editors may have overlooked the possibilities that variety in articulation may have been one of the aims in CAMB, and that Bach may originally have intended a 1+3 slurring pattern to be adopted in some bars.

5.3.7 Gavotte I

CAMB, CVienna and CBerlin have a similar quantity and length of slurs in Gavotte I, while CKellner has significantly fewer slurs, and LCJSB has the fewest slurs of all, as can be seen in Table 14. In all of the sources for cello, the most common slurs in this movement concern pairs of quavers, but the slurring in pairs is much less frequent in LCJSB, probably because the pairs of quavers are generally not over intervals of a second and therefore could not easily be executed on the lute. The slurs over pairs of quavers create a crotchet pulse, and thus draw attention to some uncertainty over the interpretation of the metre, which is indicated with a minim pulse in the time signatures of CAMB, CKellner and LCJSB, but with a crotchet pulse in CBerlin and CVienna. This ambiguity between crotchet and minim seems to be common in Gavottes, and can also be seen for instance in the Gavotte en Rondeau of Bach's E Major Partita for Unaccompanied Violin, BWV 1006.

A few slurs over three notes occur in all of the sources, but CVienna and LCJSB are the only sources with slurs over more than three notes. In LCJSB, there are no slurs at all in Gavotte I until bar 16, after which Bach has marked slurs in three situations:

3- or 4-note slurs over some of the groups of 4 descending quavers. This occurs in bars 16, 20, 23, 26 and 32.

2-, 3- or 4-note slurs over other groups of 4 quavers which do not form a descending scale, in bars 29, 30 and 31.

Over groups of 2 quavers in bars 26, 27, 28 and 29 (mostly over intervals of a second)

The following extract illustrates some of these slurring patterns:

BWV 995 Gavotte I, Bars 23-34 (LCJSB)



This extract also provides examples of slurs which are written unclearly by Bach, and rather high above the staff (especially in bar 29), leaving uncertainty about the notes to which they should apply. It also demonstrates a number of inconsistencies in the slurs. For instance, bars 26, 30 and 32 all start with a descending scale fragment of four quavers, which are slurred in a pattern 1+3 in bar 26, have no slurs in bar 30, and are all slurred together in bar 32.

CBerlin has a curious symbol over the third or fourth beat in several bars early in the movement (bars 2, 5, 7, 13, 14), resembling a slur which has been extended into a complete circle, but this does not recur after bar 14 of Gavotte I, nor in the later movements. Slurs which almost make circles also occur in some of the earlier movements in CBerlin (e.g. Allemande bars 8 and 9), but never such complete circles as in Gavotte I, e.g.:

BWV 1011 Gavotte I, Bar 5








This full circle does not seem to have any special musical significance, but appears to be a special characteristic of the copyist's way of writing slurs.

In bar 16 the only source which has a 4-note slur is CVienna, while all of the others appear very deliberately to have slurred only the last three quavers of the bar, so it is possible that

the copyist of C*Vienna* may on his own initiative have lengthened a 3-note slur given in the original source from which he was copying (as also in bar 34 of the *Allemande*):

BWV 1011/995 Gavotte I, Bar 16

C <i>AMB</i>		C <i>Kellner</i>	
C <i>Berlin</i>		C <i>Vienna</i>	
 LCJSB			

The introduction of the four-note slur in bar 16 in C*Vienna* leads to an up-bow at the start of the next bar, which would be unnecessarily awkward for the performer. As with the change in slurring introduced in C*Vienna* in bar 34 of the *Prelude*, discussed above, this possible misunderstanding by the C*Vienna* copyist may indicate a lack of knowledge of cello technique.

There are also some interesting subtleties of the writing in this movement which demonstrate the extent of Bach's knowledge of bowing technique on stringed instruments. For instance, in bar 11 the third crotchet beat has a full crotchet in the lower voices, but the last crotchet beat only has a quaver in the lower voice in all of the sources for cello because it cannot easily be played with the *f*[#] in the upper voice on the second quaver of the same beat¹. As this occurs in all of the sources for cello, it is likely that it was in all of the original sources written by Bach. In LCJSB, there are crotchets in the bass voice on both the third and fourth beats, probably because the lute had no technical limitation of this kind:

¹ By use of second position, it would be possible on the cello but rather awkward.

BWV 1011/995 Gavotte I, Bar 11

CAMB



LCJSB



Similarly, on the first beat in bar 23, the lower note is given as a quaver in the sources for cello, probably because it could not easily be played together with the quaver F in the second half of the beat, but it is given as a full crotchet in LCJSB where this technical limitation does not apply. Nevertheless, in this bar, there is no technical reason why the B \flat (lute f) quaver in the lower voice on the third beat in all of the sources for cello could not have been lengthened to a crotchet if Bach had so wished, as has been done in LCJSB:

BWV 1011/995 Gavotte I, Bar 23

CAMB



LCJSB



Finally, although C Vienna and LCJSB are the only sources with slurs which are longer than three notes in the Gavotte 1, it is possible that in the other sources several slurs were intended to be longer than they actually appear. An example occurs in bar 30, where only C Vienna has a slur which extends under all of the first four quavers, but the first slurs in CAMB and C Berlin may have been intended to be equally long. It is not possible to sustain both the G and d minims on the first beat in the cello sources while playing the quavers above, but the indication of minims may be a hint to the cellist that he should let them ring freely for as long as possible, and that the notes of the upper voice should be slurred to maintain the feeling of a minim beat.

BWV 1011/995 Gavotte I, Bar 30

The image displays five different musical notations for Bar 30 of BWV 1011/995 Gavotte I. Each notation is on a single staff with a treble clef and a key signature of one flat (B-flat). The notations are arranged in a grid-like fashion, with labels to their left. The labels are: CAMB, CKellner, CBerlin, CVienna, and LCJSB. The notations show various slurs and articulation marks over the notes, which are primarily eighth and sixteenth notes. The LCJSB notation is positioned below the others and shows a different arrangement of notes and slurs.

5.3.8 Gavotte II

Apart from bars 15-17, which are a special case discussed further below, all of the slurs in all of the sources for cello in Gavotte II are over triplets. In many cases they are not written clearly over the whole triplet, but the triplet motif of the entire movement suggests that it is safe to assume that such short slurs are nevertheless intended to apply to the whole of each triplet (and this has been assumed to be so in Table 14).

CAMB has no slurs longer than three notes, but in bars 15-17 CKellner has one longer slur and both CBerlin and CVienna have five longer slurs each. Furthermore, in each of the sources for cello there are numerous examples of triplets indicated with a slur and without a 3, with a slur and a 3, with a 3 and no slur, and with nothing at all, but for the analysis here, only the cases with slurs have been counted, with or without a 3. LCJSB has no slurs at all, and only gives two figure 3s over the first half bar to indicate the triplets.

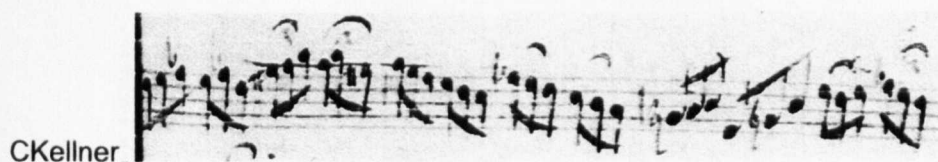
The main issue with the articulation in Gavotte II is whether the slurs over the triplets are intended to indicate that the notes under the slurs are to be played in the same bow, or they are simply triplet marks. Fuchs suggests that the examples in each of the sources where the figure 3 is not combined with a slur are deliberate indications of quavers to be played detached¹. However, in most cases where there is no figure 3 and/or no slur, the sources do not agree, and indeed the omissions seem to be fairly random (and frequent) in all of the sources.

¹ Fuchs, Ingrid. 1981, p.511.

There are 68 triplets in the whole movement, discounting those in bars 15-16 and the first half of bar 17 (discussed separately below). In CBerlin nearly all of the triplets have a slur, in CAMB and CKellner most of them do, and in CVienna very few do, as can be seen in Table 14. CVienna is different here, because most of the slurs come in the first four bars and just after the repeat sign in bar 8, so this copyist presumably expected that the performer would continue with the same slurs for the rest of each section of the movement, which would imply that the quantity of intended slurs in CVienna in this movement would be about the same as in CBerlin.

CKellner has rather fewer slurs than CAMB and CBerlin because there are a few bars where it gives slurs (and figure 3 triplet marks) only in the second half of the bar, but not in the first half. This is especially noticeable in bars 18-20, where all of the triplets are slurred in CAMB and CBerlin, but CKellner appears quite deliberately to omit slurs in the first half of each bar:

BWV 1011 Gavotte II, Bars 18-20



In bars 18-20, there may have been an intention in CKellner to vary the slurring by introducing some detached notes in the first half of the bar.

Bars 15-16 and the first half of bar 17 form a special case, where AMB and Kellner seem to have been uncertain how they should represent the grouping of the notes which is indicated by the beaming. The different treatment of these bars in each of the sources is shown in the next examples:

BWV 1011/995 Gavotte II, Bar 15 to first half of Bar 17

CAMB

CKellner

CBerlin

CVienna

LCJSB

The slurring from bar 15 to the first half of bar 17 is interesting in several respects. The beaming in all of the sources for cello follows a pattern 1 + 5 quavers (implying 12/8 and two beats to the bar), but in LCJSB a crotchet bass line has been added so that the metre remains four to the bar as in the rest of the movement, and there is just one unclear slurring in bar 16¹. The significance of the textural changes here in LCJSB has already been discussed in section 4.5.

Furthermore, in bars 15 and 16, there are dots above or below the first and seventh notes in CBerlin and CVienna in both bars. Even this is not self-consistent, however, as neither CBerlin nor CVienna has a dot over the first note of bar 17, which is a continuation of the same motif and might have been expected to be consistent with the previous bars.

CAMB is very confused in these bars, with a few figure 3s and some short slurs, but no slurs extending for five notes. CKellner has maintained some triplet indications, but the slurs are of an uncertain length, while in CBerlin and CVienna there are slurs quite clearly over each group of five quavers, with no triplet indications. The articulation in CKellner resembles that of the Prelude bars 167-170 in CAMB.

¹ The first slur appearing in the extract above in bar 16 of LCJSB actually refers to the system above.

It can be concluded from the preceding paragraphs that most of the triplets throughout *Gavotte II* were intended to be slurred in groups of three, except in bars 15-16 and the first half of bar 17. In bars 15-17, there was considerable confusion amongst the copyists, but a slur-ring of 1+5 seems to be the logical choice implied by the beaming of the notes, and this has been adopted in *NBA-cello1* and *NBA_cello2*.

5.3.9 Gigue

CKellner only contains the first nine bars of the *Gigue*, so it will be discounted from the discussion of this movement. Unusually, all of the other sources for cello have the same total number of slurs (19) in the *Gigue*, but there are nevertheless differences between their slurs, as can be seen in Table 14. For a movement of 72 bars there are not many slurs in any of the sources, and the mainly detached bowing results in most bars starting alternately with a down-bow and then an up-bow. As the down-bow is usually stronger than the up-bow, this gives the effect of a rhythm more like 6/8 than 3/8.

LCJSB has no slurs at all in this movement, which is quite surprising because there are many instances of short descending runs of four notes which might be suitable for slurring on the lute (although more difficult than ascending runs). Bach may have considered that the lutenist would slur these runs anyway, because they might be too fast to be separately articulated by the fingers of the right hand.

Some differences which are recorded here between the lengths of the slurs in the sources for cello may have arisen because some of the slurs in *CAMB*, and to a lesser extent in *CBerlin*, may have been drawn shorter than their intended length, as in the following example from *CAMB*:

BWV 1011 Gigue, Bars 62-67



In this example, the slurs have been counted strictly as one 3-note slur and three 2-note slurs when compiling the statistics in Table 14, because that is how they have been written, but it is quite likely that each of these slurs was actually intended to be over the preceding group of three semiquavers and the first note of the next bar, i.e. 4-note slurs in each case.

The main articulation principles in the *Gigue* seem to be that the groups consisting of dotted quaver – semiquaver – quaver should be played detached, and the groups of three semiquavers should be slurred, sometimes including the following note when it rises or falls by an

¹ In *CAMB* bar 29 is duplicated (almost certainly a copying error), so all references given here to bars of the *Gigue* of *CAMB* after bar 29 indicate a bar number which is one less than the actual bar number in the manuscript, for ease of comparison to the other sources.

interval of a second. This principle is not followed very precisely in any of the sources, but seems to be a common guideline, and can be seen in all three sources for cello in the next extracts:

BWV 1011 Gigue, Bars 25-33

CAMB



CBerlin



CVienna



In bars 25-33 of the Gigue, CAMB follows the presumed general principle if the last slur shown is assumed to encompass all of the semiquavers of bar 32, CBerlin follows it completely, and CVienna follows it except for the slur in bar 32, which would need to extend to the next dotted quaver in order to follow it completely.

Only in bar 3 does CAMB have a slur where the others do not:

BWV 1011 Gigue, Bars 3-4

CAMB



The other sources have no slurs at all in bars 3 and 4, but if the general principle suggested above were to be applied here, the semiquavers should be slurred and the slur should encompass the dotted quaver of bar 4 as well. NBA_cello1 (nominally based on CAMB and CKellner) shows a slur linking the three semiquavers of bar 3 to the dotted quaver of bar 4, and NBA_cello2 (nominally based on CBerlin and CVienna) indicates a dotted slur under the same notes.

Only in bar 39 do CBerlin and CVienna have a slur when CAMB does not, this slur being identical in CBerlin and CVienna. This slur is shown dotted in NBA_cello1, and as a full slur in NBA_cello2:

BWV 1011 Gigue, Bars 39-40

CBerlin



All other differences in the slurs between the sources for cello in this movement concern slurs over the bar-line after a group of three semiquavers. Typical examples are shown in the next extracts:

BWV 1011 Gigue, Bars 16-21

CAMB



CBerlin



CVienna



In CAMB, the intention of the slurs is unclear in bars 16-17, and in bar 19 the slur should probably extend to the next bar. The slurs in CBerlin and CVienna are the same in these bars, and appear to be logical.

5.4 Articulation in the *E major Partita for Solo Violin, BWV 1006*

The purpose of this sub-section is to obtain additional information about the reliability and habits of the copyists concerning articulation signs in the manuscripts of AMB, Kellner and Bach himself, by comparison to the sources for BWV 1006, in order to shed light on the articulation signs given by the same scribes in the sources for BWV 1011.

The accuracy of the articulation marks in the manuscript copies of Bach's Violin Solos by AMB and Kellner is often called into question. For instance, Eppstein summarises the copying of AMB and Kellner as follows¹:

It is clear that AMB and Kellner not only copied the articulation carelessly, but sometimes also deliberately changed Bach's intentions.

Beisswenger goes still further in describing Kellner's articulation as 'willful', 'careless' and 'negligent'.

After the comment quoted above, and on the basis of a small selection of examples, Eppstein describes the slurs in AMB's copy of the Violin Solos (compared to the autograph copy) as sometimes too short, sometimes omitted, sometimes added, often too high or too low, shifted to the right, etc.² Schwemer and Woodfull-Harris make similar criticisms on the basis of a subset of the examples quoted by Eppstein.³

It is undeniable from consideration of Eppstein's examples that the slurs in AMB's copy of the Violin Solos are frequently not the same as those in the autograph copy, the slurs in the latter being generally more consistent, and those in AMB's copy more variable. However, it is a step further to claim that, where the slurs in AMB's copy or Kellner's copy differ from those in the autograph, they are necessarily 'wrong' or 'careless', as Schwemer and Woodfull-Harris, Beisswenger and Eppstein all imply. Although this may be true in some of the examples, it is possible that conclusions based on such small samples of the manuscripts could be misleading or could obscure cases where the slurs in AMB's copy or Kellner's copy might actually be more practical or more musically interesting than those in the autograph.

Nowhere in the literature which is currently available is there a comprehensive assessment of all of the differences and similarities between the slurs in these manuscripts – the conclusions are always drawn from a few selected examples. The possibility does not seem to have been seriously considered that the differences may have arisen either because AMB and Kellner were not copying from the autograph copy of the Violin Solos which we have available today (some other original source(s) with different slurring may have been given to

¹ My translation from Eppstein, Hans. 1990. pp. 27 & 28. Original extract: *Für ... Anna Magdalena Bach und Johann Peter Kellner lässt sich zeigen, dass sie die Artikulation ihrer Vorlagen nicht nur ausserordentlich sorglos wiedergeben, sondern Bachs Absicht oft geradezu ins Gegenteil verkehren.*

² Eppstein, Hans. 1990. p.27.

³ Schwemer, Bettina and Woodfull-Harris, Douglas. 2000.

them to copy), or because some of their slurs were drawn with the deliberate intention of adding variety. If either of these possibilities is what actually happened, then their slurs should not be so easily dismissed or criticized.

These are important questions for the assessment of the reliability and interest of the slurs in CAMB and CKellner. If AMB and Kellner were careful copiers of slurs, then their slurs in CAMB and CKellner should be taken seriously, even if they are sometimes inconsistent or different from our modern expectations.

The discussion of the articulation in the Violin Solos will concentrate on the Gavotte en Rondeau and Menuet I of BWV 1006, as explained in section 1.4.

The articulation marks in VJSB, VAMB, VKellner and LVJSB are confined to slurs, there being no dots, dashes or other articulation indications. Von Dadelsen suggests that when Bach wrote slurs above the notes, they were often rather high and shortened, and when they were written under the notes they were often shifted to the right, with a strong curvature at the left end¹. However, Von Dadelsen also mentions that in VJSB the slurs have been quite precisely indicated, and indeed in the Gavotte en Rondeau and Menuet I of the 3rd Partita the slurs in VJSB seem to have been carefully written, with consistent markings for similar passages.²

VJSB and VAMB have similar quantities of slurs in each category of length, with about one slur per bar on average over the two movements studied here, while VKellner has only about half as many, see Table 15. LVJSB has fewer slurs still, which is only to be expected bearing in mind the technical difficulty of slurring on the lute.

The most frequent slurs in each of the sources of the Gavotte en Rondeau are over pairs of quavers, generally helping to suggest a crotchet pulse even though the movement is written in 2/2 in three of the sources, and occasionally also introducing an element of syncopation. A similar ambiguity in the pulse in Gavotte I of BWV 1011 was discussed in section 5.3.7.

In Menuet I, the most frequent slurs in VJSB and VAMB are over three notes, while in VKellner and LVJSB the most frequent slurs are over pairs of notes – indeed, it is quite remarkable how many more slurs over three notes occur in Menuet I in VJSB than in any of the other sources. Some examples are shown in the following extracts, where VJSB has a 3-note slur in every bar, under or over the first three notes of the bar, while VAMB and VKellner are quite different, and LVJSB has no slurs at all (so it is not shown here).

¹ Von Dadelsen, G. 1993, p.102-104

² Von Dadelsen, G. 1993, p.105.

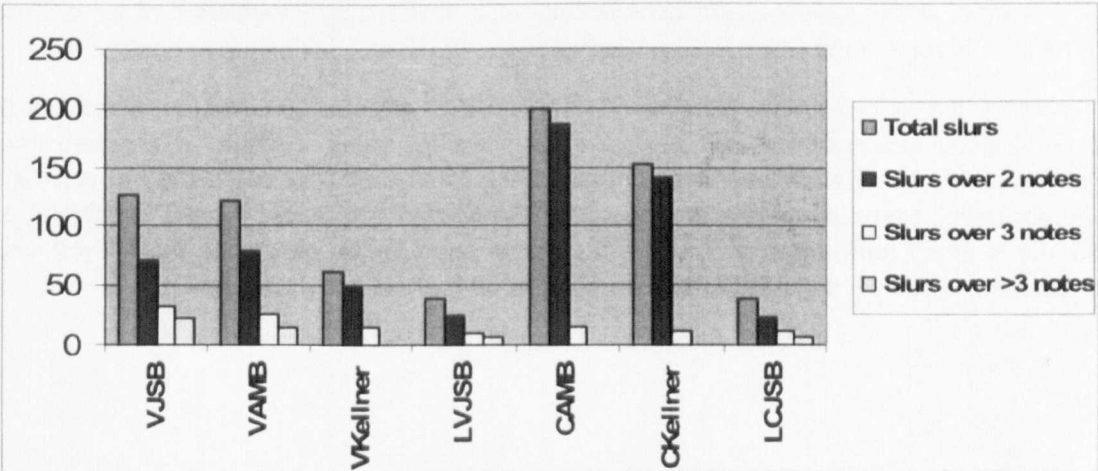
BWV 1006/1006a Menuet I, Bars 19-24



The slurs of VJSB in the above extracts seem to be deliberately consistent, but those in the other sources are much less consistent. Bar 23 is a special case where confusion with the notes, already discussed in section 4.6, has apparently also caused confusion with the slurs in VAMB. The marks below the notes in this bar in VAMB seem to be rests rather than slurs.

In order to speculate which slurs may have been in the original source(s) from which CAMB and CKellner were derived, the slurs in the sources for the Gavotte en Rondeau can be compared to the slurs in the sources produced by the same copyists in Gavotte I from BWV 1011, these two Gavottes being the only movements which are similar in the two works. The quantities of slurs in each source are shown in Figure 5-2, measured as a percentage of the number of bars in each Gavotte:

Figure 5-2 Percentage of slurs per bar in the sources for the Gavotte en Rondeau (BWV 1006/1006a) and Gavotte I (BWV 1011/995)




CAMB and CKellner have proportionally many more slurs per bar in Gavotte I than VAMB and VKellner have in the Gavotte en Rondeau (respectively 200% and 153% in the sources for cello compared to 122% and 62% in the violin sources), as can be seen in Figure 5-2. Furthermore, in CAMB and CKellner by far the most frequent slurs concern pairs of notes, while in VAMB and VKellner there are proportionally more slurs of greater length. Perhaps the longer (and hence fewer) slurs in the violin sources arise because longer bowings are a little easier to execute on the violin than on the cello?


The number of slurs per bar in LVJSB and LCJSB are proportionally exactly the same, namely 39%, and they also have very similar proportions of 2-, 3- and more than 3-note slurs. The similar proportional quantities of each type of slur in these sources suggest that Bach's articulation considerations when writing the slurs in both lute transcriptions were similar, even though the two transcriptions were produced some years apart.

In the Gavotte en Rondeau, a tendency of AMB to write slurs further to the right than one would normally expect can be seen in the next example:

BWV 1006 Gavotte en Rondeau, Bars 42-43



VJSB




VAMB


The short slurs in the second half of each of these bars in VAMB can only be intended to indicate that the quavers are to be slurred in pairs, so there is no real performance issue here, but they have certainly been drawn far to the right of their logical places. In contrast, the slurs in the autograph are much more carefully written.

By reference to bar 90 of the Gavotte en Rondeau, it might be argued that some of the longer slurs in VAMB have been carelessly shortened in comparison to those of VJSB:


BWV 1006/1006a Gavotte en Rondeau, Bar 90




VJSB



VAMB



VKellner



LVJSB

However, comparison to the same bar in VKellner and LVJSB shows that they too have shorter slurs in this bar (but over different notes), so it seems that VJSB is actually the exception. Furthermore, the slurs in VAMB seem to be deliberate and clear here, so they may not have been drawn carelessly at all, but may have been faithfully copied from the original source which was available to AMB (which may not have been VJSB).

More controversial may be the slurs over three quavers which occur in many bars of the Gavotte en Rondeau in both VJSB and VAMB, such as bar 4 shown below. This is one of the bars which Eppstein uses as an example of AMB's 'careless' copying¹:

BWV 1006 Gavotte en Rondeau, Bar 4



VJSB



VAMB

VJSB shows this slur carefully written over the first three quavers of the bar, forming an articulation pattern of 3+1, while VAMB seems to have the slur equally carefully written over quavers 2-4, producing a significantly different performance effect with an articulation pattern of 1+3. In fact, it is quite remarkable that whenever VJSB indicates a 3-note slur in the Gavotte en Rondeau, it is always in the pattern 3+1. VAMB agrees with these slurs in VJSB in 12 cases (bars 3, 10, 13, 19, 28, 35, 43, 55, 57, 58, 59, 67), while in another 14 cases VAMB has the pattern 1+3 (bars 4, 5, 20, 21, 45, 49, 51, 52, 53, 54, 56, 68, 69, 81). There are also a few cases where it is not clear what is intended in VAMB, so they have been discounted in the above analysis.

These differences seem to be sufficiently frequent and carefully-written in VAMB to indicate that they are neither coincidence nor the result of sloppy copying, but a deliberate attempt to vary the articulation. This does not mean that AMB necessarily made these changes on her own initiative, although this may have happened. It is also possible that they were already in the original source which she was copying, or that Bach himself or someone else suggested to her that changes in articulation should be introduced.

Kramer and Fuchs² have come to the conclusion that the similarities in the layout, line breaks and note heads between all of the Violin Solos in the autograph copy and AMB's copy indicate that AMB's copy was actually copied from the autograph. However, from this study of the Gavotte en Rondeau it seems that either this was not the case (because the slurs are so different), or AMB introduced quite comprehensive and deliberate changes to the slurs when producing her copy.

A source of suggestions for the introduction of more varied articulation might have been Georg Heinrich Ludwig Schwanberg (1696-1774). As has been noted in chapter 2, he was the chamber musician for whom AMB made her copies of the Violin Solos and the Cello Suites, and his handwriting appears both on the title pages and inside the manuscripts. He was obviously closely involved in the production of the copies, and his cooperation may well have extended to the introduction of ideas on articulation.

¹ Eppstein, Hans. 1990. p.29.




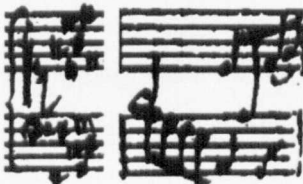
² Kramer, Laura. 1998. p.47, and Fuchs, Ingrid. 1981. p.419.

Alternatively, if Bach himself suggested the additional variety in the articulation which is seen in AMB's copy of the Violin Solos, it might be expected that LVJSB, which he produced some years later, would show a similar trend. Only a limited comparison can be made because in every case listed above where VAMB has different slurs over 3 notes compared to VJSB, LVJSB has no slurs at all, probably because the quavers concerned form arpeggios which cannot easily be slurred on a lute. Nevertheless, where the quavers of the Gavotte en Rondeau form scale fragments with adjacent notes which are easier for slurring on a lute, the pattern 1+3 can be seen in bars 9, 10, 11, 32, 61, 74 and 75 of LVJSB, while the pattern 3+1 which is so common in VJSB occurs in LVJSB only in bars 58 and 60, and the pattern 2+2 occurs in bars 14 and 25. Although this is only a small sample of Bach's work, it may indeed be an indication that he was attempting to introduce variety into the articulation in his middle and later years.

In VKellner the articulation is also more varied than in VJSB, with not so many 3-note slurs in total, but nevertheless several examples of each of the slurring patterns 3+1, 1+3 and 2+2 and only occasional similarity to the slurs in the other sources.

There are several bars in all of the sources where the double stopping implies a slur for the violin even if it is not clearly written in the manuscripts, such as in the next example:

BWV 1006/1006a Gavotte en Rondeau, Bar 26


VJSB		VAMB	
VKellner		LVJSB	

When played on the violin, the minim over the first half of this bar implies that the first four quavers must be slurred together. This is shown by a carefully written slur in VJSB, while in VAMB there is only a short unclear slur; nevertheless, VJSB and VAMB can be considered to be consistent here because of the implied slur arising from the minim. LVJSB has been re-composed in this bar, so the slurs are not comparable, but the slurs in VKellner are interesting because they show the first four quavers slurred in pairs. If the minim is sustained for its full length, the quavers cannot be played in pairs on the violin, or indeed any instrument played with a bow, but there would be no problem to play this slurring on a keyboard instrument. Bearing in mind that Kellner was a keyboard player, this may indicate that he had a keyboard performance in mind when he produced his copy, or that the original source which he was copying was intended for a keyboard performance.


In LVJSB, five long slurs over five notes have been introduced in the Gavotte en Rondeau, while the violin sources considered here do not have any slurs over more than four notes,

except in the cadential section from bar 86 to the end. An example of a long slur in LVJSB is in bar 53:


BWV 1006/1006a Gavotte en Rondeau, Bar 53




VJSB



VAMB



VKellner



LVJSB

While these long slurs in LVJSB all concern scale fragments of conjunct notes which could be played without too much difficulty on the lute, it is a little curious that these passages have not been indicated with slurs in the violin sources, as the violin could execute the slurs much more easily. This may not be the same as the issue which was noted with very long slurs in LCJSB, because the latter are much too long to be practical slurs for the lute and are therefore certainly phrasing marks. The 5-note slurs in LVJSB appear to be genuine slurs and may represent a new idea for articulation which occurred to Bach when making the transcription.

Beisswenger suggests that there are eight categories of problem with the slurs in VAMB¹:

1. Unclear slurring at largely unchanging motivic activity
2. Reduction of long slurs
3. Shifts to the right
4. Short and imprecisely placed slurs for groups of three notes
5. Separation of slurs at changes of staff (slur not carried on to the staff on a new line)
6. Slurs placed too high
7. Syncopated slurs (syncopated slurs in an original source are copied by AMB without the syncopation)
8. Open slurs (long slurs with unclear start and finish).

Similar categories are suggested by both Fuchs and Kramer². In the Gavotte en Rondeau in VAMB, examples of Beisswenger's problem number 3 have been noted above, but the examples given above of shorter slurs and slurs over three notes are different from Beis-

¹ Beisswenger, Kirsten. 2000. (edition).

² Fuchs, I. 1981. pp.418-419, and Kramer, Laura. p.47.

swenger's problems number 2 and 4 because they do not seem to be problems of imprecision, but deliberate attempts to add extra variety and vivacity to the articulation.

In fact, there do not seem to be examples in the Gavotte en Rondeau of any of the problems noted by Beisswenger except number 3. Furthermore, in Menuet I, the slurs in VAMB do not seem to illustrate any of the problems mentioned by Beisswenger. Indeed, contrary to Beisswenger's problem number 2, the slurs in Menuet I in VAMB are occasionally actually longer than those in VJSB, as shown in the examples of bars 19, 20 and 21 illustrated above.

From the evidence of this study, it appears that the slurs in VAMB do not exhibit many examples of the problems mentioned by Beisswenger, and that they appear to be intended to add variety to the performance. The slurs in VJSB are more consistent, but this consistency may have been deliberately avoided in VAMB. It seems fairly safe to assume that the slurs in CAMB would also be found to be more varied and less consistent than the original source from which it was copied, if that source were still available, and that the differences might often have been deliberate.

It has already been noted that VKellner has many fewer slurs than VJSB and VAMB, and from the examples given above of bars 26, 53 and 90 of the Gavotte en Rondeau, and bars 19-24 of Menuet I, it can be seen that the slurs in VKellner are sometimes different from all of the other manuscripts. Some of the differences may represent a slurring which existed in the original source from which VKellner was derived, but which was not present in the sources from which the other surviving copies were derived.

5.5 Additional reflections on the articulation in the lute transcriptions

As noted in the introduction to this chapter, it is generally more difficult to obtain the effect of a slur on the lute than on the cello or the violin, especially when extended for an interval greater than a second or for more than five notes. In a descending passage, they are executed by slightly plucking the string with the fingers of the left hand as they are removed from the string, while for ascending passages they are executed by the percussive effective of the left hand fingers on the string, in both cases without intervention of the right hand apart from plucking the first note of the slurred passage. Inevitably this means that the slurred passages, whether ascending or descending, are likely to be somewhat softer and less clear than passages which are plucked with the fingers of the right hand. Where slurs are indicated for the lute over more than five notes, they probably are intended to be phrase marks rather than true slurs.

Bearing these considerations in mind, it can be assumed that, where slurs have been written in the manuscripts of LCJSB and LVJSB, Bach must have considered them to be especially important, and it might be expected that there would be fewer and shorter slurs than in the sources for cello or violin.

However, these expectations are not completely fulfilled. There are indeed many fewer slurs in every movement of LCJSB and LVJSB which has been studied here than in the equivalent cello or violin manuscripts, with no slurs at all in Gavotte II and the Gigue of LCJSB. What may be a little surprising is that in LCJSB the proportion of the slurs over three notes or more is rather high (56% of the total number of slurs) compared to the sources for cello (about

48%). In LVJSB, the proportion of slurs over three notes or more (39% of the total number of slurs) is similar to that of the violin sources (which range from 23% to 44%), but certainly not significantly lower.

Furthermore, in several movements of LCJSB there are longer slurs than in any of the corresponding sources for cello, and they are often over intervals of greater than a second, so they would be quite difficult to execute on the lute. Examples of such long, apparently impractical slurs in LCJSB occur in:

Prelude, first section (all four slurs)

Prelude, fugal section, bars 92 and 101

Allemande bar 33

Courante bar 5

In the Sarabande of LCJSB, there is only one slur over four notes, the rest being over three notes, but all of them are also over intervals which are greater than a second, so they are not easy to execute on the lute.

The Gavotte en Rondeau of LVJSB has six slurs which are more than three notes long, but they generally seem to be more practical than the long slurs in LCJSB because they are never over more than six notes, and they are always over adjacent notes. In Menuet I, LVJSB does not have any slurs over more than three notes.

Another characteristic of the slurs in LCJSB is that, in several of the movements, they do not appear until well into the movement:

Fugue section of the Prelude – no slur in LCJSB before bar 92 (Fugue starts in bar 27)

Allemande – no slur in LCJSB before bar 13

Gavotte I – no slur in LCJSB before bar 16

Similarly, in the Gavotte en Rondeau of LVJSB, there is no slur before bar 9, and the same trend can be seen in the other movements of this Partita, although in Menuet I there are too few slurs to draw meaningful conclusions. When the slurs do eventually start in each movement of the LVJSB, they are often over motifs which occurred earlier (detached) in the same movements, while the corresponding cello or violin sources all have slurs earlier in the movement.

What are we to conclude from all of the special characteristics of the slurs in the lute transcriptions? It certainly seems that Bach recognized the difficulty of executing slurs on the lute, and therefore minimized the quantity of slurs which he inserted. The same consideration may have led him to indicate the first statement(s) of the main motifs in each movement in the lute transcriptions detached, so that they could be more clearly heard, and only introduced slurring later in order to add variety.

The very long slurs over large intervals in LCJSB were probably intended to be phrase marks rather than actual slurs, as Bach must certainly have known that they could not practically be slurred on the lute, but an additional mystery is that sometimes these long slurs

occur in passages where there are no equivalent slurs in the sources for cello, so the question arises: why did Bach insert them at all? This will be discussed further in section 7.3.

The long slurs in LVJSB are more practical for execution on the lute than those in LCJSB, and may indicate some new ideas for slurring which occurred to Bach when making this transcription.

5.6 Conclusions on articulation

In all of the available sources for BWV 1011, the articulation marks are predominantly slurs. The only other articulation marks are a few dots in the Courante in CBerlin, CVienna and LCJSB, and in Gavotte II in CBerlin and CVienna. The scarcity of articulation marks apart from slurs continues throughout the sources for the Cello Suites, and is even more noticeable in the sources of the Violin Solos and the autograph score of the Brandenburg Concertos, in neither of which do there seem to be any articulation marks at all except for slurs. In comparison, the autograph of the Gamba Sonata BWV 1027 (the only one of Bach's three Gamba Sonatas for which an autograph manuscript has survived) contains numerous dots in the gamba part, and the autographs of some of Bach's keyboard works also have a few dots.

It can be concluded that staccato playing was not common in Bach's day on the violin or cello, perhaps because of the difficulty of playing staccato with the Baroque bow, although it was apparently part of established gamba technique. The dots in the sources for BWV 1011 were probably intended to indicate notes which should at least be played detached. Where they concern two crotchets within a minim beat, they may also indicate that the notes should be played with equal length, i.e. not to be played as *notes inegales*. Separate, slightly detached bowing is likely to have been the norm, and some of the slurs seem to have been arranged to allow a down-bow to be taken on the strong beats.

The slurs are frequently inconsistent between the sources for BWV 1011, and even within each source they are often unclear and inconsistent in similar passages. Patterns of notes which recur several times in the same movement often have different slurring in the same source, which may in some cases be deliberate and in other cases simply the result of careless copying.

The more numerous slurs over more than 3 notes in some movements of CVienna may sometimes be due to the greater care which the copyist took to extend his slurs to all of the notes which he intended to be slurred together. In some cases, it can be seen in CVienna that relatively short slurs have been changed to new, longer slurs which have been superimposed as corrections¹, suggesting that the copyist extended the slurs on his or her own initiative or on the initiative of the client for whom the copy was being made. These changes may also have been introduced by someone else at a later date.

All of the sources for cello have implicit slurs, where a long note is indicated in one voice while shorter notes are to be played in a higher or lower voice. Sometimes it is possible to play the notes exactly as indicated (slurring the shorter notes), but sometimes it is not possi-

¹ e.g. in the Allemande bars 25 and 34.

ble owing to an unavoidable change of string. At least in the cases where the notes cannot be played together as indicated, it may have been intended that the finger which plays the long note should be held down (allowing the note to continue to ring), while the shorter notes are played on the string(s) above or below, either detached or slurred in smaller groups.

A common pattern in the Fugue is the relatively frequent slurring of arpeggiated motifs, but an unusual feature is that all of the sources have very few slurs in the opening section, with substantial slurring only starting from bar 68. The Fugue starts in bar 27 of the Prelude, but between there and bar 68, CAMB, CBerlin and CVienna have explicit slurs in bars 32 and 35 only, while CKellner and LCJSB have none at all. As the slurs are so scarce in all of the sources in the early part of the Fugue, it seems safe to assume that this was also the case in the original sources by Bach from which they were copied, and this suggests that Bach intended the motifs of the Fugue first to be stated as clearly as possible without slurs, before re-introducing them later with slurs to add variety.

Articulation is especially important in the Sarabande, because the slurs can be arranged to provide a slight emphasis on the second beat, as is common in other sarabandes, if the performer so wishes. Most of the quavers in this movement are slurred in pairs in CBerlin and CVienna, with a very strong correlation between the sources. CAMB has slurs over three notes as frequently as slurs over notes in pairs, and some bars without any slurs, thus giving the most varied slurring of the available sources. LCJSB has no quavers slurred in pairs in the Sarabande, but has a significant number of slurs over three notes which could not easily be executed as true slurs on the lute because they are generally not over adjacent notes. The only slur over four notes in LCJSB is shifted to the right compared to the slur in the same bar in CAMB. Slurring in pairs probably gives the greatest scope for emphasising the second beat of each bar, but this does not seem to have been a concern in CAMB and LCJSB.

Some cases occur in both the Prelude and the Sarabande where Eppstein and most modern editions of the Cello Suites have slurs which are different from those in all of the sources. In these cases, the slurs in at least some of the sources could be quite practical and musically effective for performance, so the changes introduced in the editions appear to be unjustified. For instance, Eppstein suggests a fully consistent slurring of the first four quavers of each bar in the Sarabande, either in pairs or in groups of four, with none of the 3-note slurs found in CAMB and LCJSB. It seems that the editor may have overlooked the possibility that variety in the articulation was actually intended in some places, at least in the surviving manuscripts, if not in the original source(s) from which they were copied.

Some particular characteristics of the copyists of CAMB, CKellner, CBerlin and CVienna are:

In CAMB, the slurs are occasionally shifted to the right from their logical location, especially in bars 190-192 of the Prelude (fugal section). Sometimes there seems to have been a deliberate attempt to add variety in the articulation (for instance in the fugal section of the Prelude and in the Sarabande), and sometimes there has been special attention to cello technique to facilitate the bowing (for instance in the Allemande and the Courante).

In CKellner, slurs shifted to the right occur in bars 110-111 and 138-139 of the Prelude (fugal section), and also in bars 9 and 33 of the Allemande. As with CAMB, there is considerable variety in the slurring, which may have been in the original

source from which Kellner was copying, or may be the result of an attempt by Kellner to introduce more variety in the slurs during the copying process.

In CBerlin, there is a tendency to draw longer slurs than in CAMB or CKellner, and this copy contains an especially large quantity of 3-note slurs. Some of the slurs in Gavotte I have been drawn as complete circles, which do not seem to have any particular musical significance compared to normal slurs, but are probably just a characteristic of the copyist.

In CVienna, the quantity of slurs concerning more than three notes is greater than in any of the other sources for cello. This is partly because the copyist has been very careful to draw the slurs over all of the notes to be slurred together, but he or she has also lengthened several slurs in the Allemande, Courante and Gavotte I during the copying process, which suggests a general preference for longer slurs. There are some signs that he or she may not have been familiar with the technique of bowed string instruments, because some of the changes which have been made in the Allemande and Gavotte I introduce awkward bowing patterns for the cellist.

My analysis suggests that the slurs in VAMB are often quite deliberately different from those in VJSB, and that the differences are not the result of sloppy copying. The slurs in VJSB are more consistent, but this consistency may have been deliberately avoided in VAMB. It is also possible that the different slurs were already in the original source which AMB was copying, or that Bach himself or someone else suggested to her that changes in articulation should be introduced, or even that someone else wrote in these slurs. A possible source for the different slurs may have been the violinist Schwanberg, whose handwriting is present in the titles of some of the works and movements in VAMB. As CAMB was produced at about the same time and under the same conditions as VAMB, the same influence may have been present, and the slurs in CAMB can be expected to have had the same characteristics as VAMB vis-à-vis the sources from which they were copied.

VKellner has many fewer slurs than VJSB and VAMB, and the slurs are sometimes different from those in all of the other manuscripts for BWV 1006. Some of the differences may represent a slurring which existed in the original source from which VKellner was derived, but which was not present in the sources from which the other surviving copies were derived.

The characteristics of the slurs in LVJSB and LCJSB are more similar than those in the sources for cello or violin. These two transcriptions have almost exactly the same proportional quantities of each length of slur per bar, which suggests that Bach's considerations when writing the slurs in these transcriptions were similar, even though LVJSB is thought to have been produced about ten years after LCJSB. It certainly seems that Bach recognized the difficulty of executing slurs on the lute, so he minimized the quantity of slurs that he inserted in both transcriptions, and the same consideration may have led him to indicate that the first statements of the main motifs in each movement in the lute transcriptions should be played detached, so that they could be more clearly heard, and only introduce slurring later in order to add variety. This is especially noticeable in the Fugue, Allemande and Gavotte I in LCJSB and in the Gavotte en Rondeau in LVJSB.

The slurs in LCJSB demonstrate a number of inconsistencies within the manuscript in similar passages, but nevertheless there are some important trends, such as the frequent slurs over

four descending quavers in Gavotte I. Especially intriguing in LCJSB is the comparative scarcity of 2-note slurs, which would normally be the easiest type of slur to execute on the lute, and the comparatively large proportion of fairly long slurs over intervals greater than a second which are difficult to execute, including one slur in the first section of the Prelude which is over 59 notes. The long slurs over large intervals and more than five notes were probably intended to be phrase marks rather than actual slurs, as Bach must certainly have known that they could not practically be slurred on the lute. However, an additional mystery is that sometimes these long slurs occur in passages where there are no equivalent slurs in the sources for cello (e.g. bars 92 and 101 of the Prelude, bar 33 of the Allemande, bar 5 of the Courante, bar 5 of the Sarabande), so the question arises: why did Bach insert them at all? This will be discussed further in section 7.3.

6 Ornaments

6.1 Introduction

The numerous ornaments given in the manuscript sources for BWV 1011 provide some interesting insights into Bach's performance practice at the time when the manuscripts were written. However, the ornaments are often not clearly written and not consistent between the sources, so it is not always possible to be sure which ornaments were originally intended by Bach, nor how he might have expected them to be executed.

The discussion in this chapter concentrates on the ornaments which are written in the manuscripts either as small notes or by use of special symbols. The manuscripts also contain some small groups of full-sized notes which might be considered to be written-out ornaments. As they have been written at full-size, it seems that Bach or his copyists considered these notes as structural to the melody, not as decoration, so they will not be considered here as ornaments except occasionally where they are relevant for comparison to the small-note ornaments.

6.2 The 'Explication'

The natural starting point for a study of Bach's ornaments is the only written-down explanation which he provided of his ornaments, the well-known *Explication* given in the *Klavierbüchlein für Wilhelm Friedemann Bach*, which is reproduced in Figure 6-1. It is thought to have been written in January 1720¹, which would make it almost exactly contemporary with Bach's Cello Suites, and it is thus a key reference for this chapter.

¹ Emery, Walter. 1981. p.13.

Figure 6-1 Extract from the 'Klavierbüchlein für Wilhelm Friedemann Bach' by J.S. Bach




Although the Explication shows a wider range of ornaments than is found in the sources for BWV 1011, it is relatively simplistic and leaves open a number of questions concerning interpretation. Emery describes the Explication as 'hopelessly inadequate' as a guide to Bach's ornaments¹. The simplicity may be due to the fact that it was intended as basic guidance for Wilhelm Friedemann, who was only about 10 years old when the Explication was written. For instance, obvious limitations of the Explication include:

There are no examples of small-note types of ornaments.

There are only two examples of appoggiaturas (rising and falling) unencumbered with other ornaments, both examples having a crotchet as the following note and the required performance indicated as two equal quavers. This leaves it unclear how long Bach would have intended the first note of an appoggiatura to be played in other situations, such as when the main note is a dotted crotchet.

The only sign given for a trill is 'tr', with no mention of the 't' or 'tr' symbols, although the latter are used almost exclusively to indicate trills in all of the sources for the Cello Suites and Violin Solos (including those in Bach's own hand), suggesting

¹ Emery, Walter. 1981. p.1.

that the sign '  ' may have had a different meaning or purpose for Bach than the 't' or 'tr' symbols.

In the last two examples in the Explication, the notes of the written-out version do not add up to the correct total of a crotchet.

Thus, although the Explication is very important as the only written explanation by Bach of his ornaments, it has rather limited value for a discussion of the ornaments in Bach's Cello Suites.

6.3 *Issues with the ornaments*

While many of the issues with the note pitches or note lengths in the sources of BWV 1011 can be resolved by comparing the same passages in each of the sources, or by analogy to other passages in the same sources, or even by analogy to other works by J.S.Bach in a similar style, it seems to be more difficult to resolve the issues with the ornaments. The differences between the ornaments given in the sources are proportionally more numerous and more extensive than the differences between the notes, and analogy to other passages or to other works may not be valid because it is possible that variety in the ornamentation was being sought in some cases.

BWV 1011 is the most heavily ornamented of all of Bach's Cello Suites in all of the surviving sources. However, a noticeable feature of the ornaments in all of the sources for cello is that they represent a very limited range of simple ornament types, namely the trill, the grace-note, the turn and possibly the vibrato ornament¹. LCJSB has a similar limitation, but includes a very small quantity of mordents. A similarly limited range of simple ornaments can be seen in most works for strings by Bach from the same period, such as the Brandenburg Concertos, the Violin Solos and the Sonatas for Viola da Gamba.

This seems at first sight to be a little surprising, because there were many different ornaments in vogue in the early 18th Century, as demonstrated in the Explication. The autograph copies of the Two-part and Three-part Inventions (which were included with the Explication in the 'Klavierbüchlein für Wilhelm Friedemann Bach', and are thought to have been composed between 1720 and 1723) and the keyboard Partitas published in 1731 make use not only of most of the ornaments from the Explication, but also many others. Lescat identifies no less than 20 separate types of ornament in Bach's published keyboard works, quoting examples which are mostly taken from the Partitas².

The most significant general questions concerning the ornaments which will be addressed here are:

1. From the similarities and differences in the ornaments given in the different copies, can we deduce any information about the relationships between the copies, and their derivation from the original source(s)?

¹ The naming conventions used in this dissertation for ornaments are provided in the Preface.

² Lescat, Philippe. 1992. pp.XI-XXII.

2. Were the copyists generally faithful to the original source in copying the ornaments, or did they introduce their own ideas or 'corrections' as they worked?
3. Were Bach's own ornaments consistent in similar passages, and was consistency in any case generally expected or deliberately avoided in this genre of music?
4. Why is there such a limited range of types of ornament in the manuscripts under study?
5. Did Bach's tastes or uses of ornaments change during his lifetime?
6. Would Bach have expected increasing use to be made of ornaments as a movement progresses?
7. Where the manuscripts differ in their ornamentation, can Bach's preferences be deduced?
8. Should ornaments sometimes be played even when they have not been explicitly specified in the text?
9. Why did Bach apparently introduce new and modified ornaments into BWV 995 when transcribing it from BWV 1011?

Some questions about particular types of ornaments which will also be addressed are:

Trills: In which circumstances might Bach have expected a trill to start on the upper or on the main note? How might he have expected a trill to end, e.g. with a turn or without? Would he have expected the performer to trill on the open string of a bowed string instrument? Were there some places in the music where a trill was always expected (e.g. before cadences) even if not written in explicitly? Is there any significance in the different ways in which the trill symbols are drawn by each copyist?

Grace-notes: In which circumstances might Bach have expected grace-notes to be played short or long, and before or on the beat? Is there any significance if a grace-note is shown as a small quaver or as a note of another length, e.g. semiquaver?

Turns: Were the few turns in the sources really intended to be played as such, or are they loosely written versions of other ornaments?

Vibrato: Was a wavy line symbol over a single note intended to indicate vibrato?

Mordents: Were mordents exclusively reserved for keyboard works?

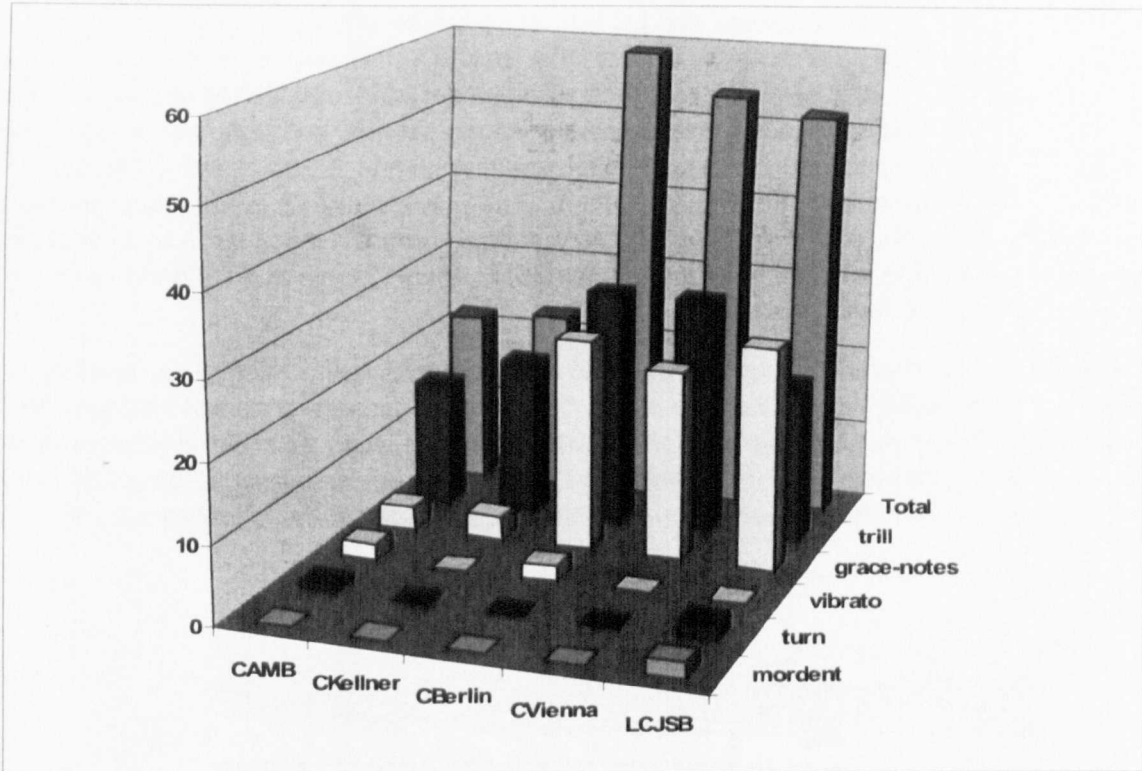
Conclusions on all of these questions will be provided at the end of this chapter.

6.4 Overview of the ornaments

Considering all movements together in each of the sources, CBerlin has the greatest quantity of ornaments, while CVienna and LCJSB have a little fewer, and CAMB and CKellner have less than half as many, see Figure 6-2. The smaller quantity of ornaments in CKellner is partly due to the presence of only the first nine bars of the Gigue in this source, while the other sources have numerous ornaments in the Gigue. Also, there would be some sixteen

more grace-notes in CVienna and CBerlin, and four more trills in CKellner, if it were assumed that the grace-notes and trill in the first four bars of Gavotte I in these sources were intended to be repeated at each recurrence of the rondeau motif.

Figure 6-2 Total quantity of ornaments in each of the sources for cello, all movements



One possible explanation for the wider range of ornaments in Bach's keyboard works than in his works for strings may be that contemporary keyboard instruments could not sustain the notes at a constant intensity in the same way as bowed string instruments, so Bach may have felt a need to decorate his keyboard works with more complex ornaments in order to sustain the sound as long as possible, profiting from the relative ease with which complex ornaments can be executed on a keyboard instrument. A second explanation, perhaps combined with the first, could be that most performers of bowed string instruments were trained as orchestral players, and in orchestras a more limited range of simple ornaments was employed because of the difficulty of synchronising more complex ornaments amongst multiple instruments, so it was not part of the orchestral performers' tradition and training to interpret complex ornaments.

The more numerous ornaments in LCJSB compared with CAMB and CKellner, and the occasional use of mordents, may partly be due to the need to compensate for the natural decay of each note after it has been plucked on the lute, as on the keyboard already discussed in section 6.3. This theory is supported by the still more numerous ornaments which were added by the (unknown) contemporary lutenist who produced the Tablature version of

LCJSB. Similarly, LVJSB has more ornaments than VJSB, VAMB and VKellner, as will be discussed later in this chapter.

The quantity of ornaments in each movement in each source is shown in Table 16.

In the first section of the Prelude, there are not many ornaments in any of the sources, and the most remarkable difference between the ornaments in the sources is the greater quantity of grace-notes in CBerlin, CVienna and LCJSB, the other sources having no grace-notes at all. The general scarcity of ornaments may arise because this section of the Prelude is in any case decorated with several groups of semiquavers and demisemiquavers, some of which could be considered as written-out turns or appoggiaturas, so Bach may have felt that it was not necessary to add much additional ornamentation. CBerlin and CVienna have eight identical ornaments, in the same locations. The only ornaments in the fugue section of the Prelude are trills, and even they are very scarce, probably because it is quite a fast movement. All of the sources have a trill in bar 33, but only CBerlin and CVienna have a trill in bar 78 and only CBerlin has a trill in bar 182.

The most highly ornamented movement in all of the sources is the Allemande, in which the most significant difference in the ornaments between the sources concerns the quantity of grace-notes, being much higher in LCJSB, CBerlin and CVienna than in the other sources. Bars 6-8 of the Allemande as represented in LCJSB also provide a good example of inconsistent ornaments in one of Bach's own manuscripts, illustrated in the following extract:

BWV 995 Allemande, Bars 6-8



In each bar in this example, the rhythmic motif is similar, but on the fourth crotchet beat of bar 6 there is no ornament, in bar 7 there is a trill and in bar 8 a grace-note. It could be argued that the preparation for the fourth beat is different in each case, being a leap from below in bar 6, a leap from above in bar 7 and a fall of a second in bar 8, and that this might account for the different ornaments, but it is perhaps more likely that Bach simply felt that it would be uninteresting and pedantic to have the same ornament in each bar, preferring to have some variety. The sources for cello all have the same trill in bar 7 as LCJSB, but no ornaments in bars 6 and 8.

In the Allemande the ornamentation is generally inconsistent for similar motifs between all of the sources, but there are nevertheless some general trends. Table 17 records every ornament written explicitly in every bar of the Allemande in each source, and the columns of the table headed 'short note' and 'long note' make a first level of separation between the motifs of the movement. 'Short note' means that the ornament concerns a note of less than one crotchet length, while 'long note' indicates that the ornament concerns a note of at least one

crotchet length. It can be seen from the table that there is a slight tendency towards more ornaments in the second half of the movement, which may arise from a desire to start by stating the motifs clearly without ornamentation, and to increase the ornamentation as a movement progresses. In the first half of the bar, where there is often the beginning of a phrase, there are fewer ornaments, and if there is an ornament it is often a grace-note. If the first beat of the bar is a 'long note', then it may have a grace-note or a turn, but never a trill. There are almost no ornaments on the second crotchet beat, perhaps because an ornament creates an emphasis which may have been judged undesirable on the weak second beat of the bar. The most frequently ornamented beat is the third, especially if it starts with a 'short note', in this case usually a dotted quaver, and several cadences are preceded by dominant trills on dotted quavers on the fourth beat of the previous bar.¹

In all of the sources, the Courante is the second most highly ornamented movement of this Suite. The main difference between the sources is that there are a few more trills and grace-notes in CBerlin, CVienna and LCJSB than in CAMB and CKellner. As in the Allemande, the ornaments in the Courante are not consistently applied in any of the sources to similar motifs, and there is a tendency to have trills at the end of the bar and grace-notes at the start of the bar, although there are some exceptions, illustrated in Table 18. However, unlike the Allemande, the quantity of ornaments in each half of the movement is nearly equal in the Courante, and all of the ornaments concern notes which have a length of a crotchet or more (in the Allemande there was a fairly equal balance between ornaments on short notes or long notes).

There are no explicit ornaments in the Sarabande, although every bar except bar 8 has at least one written-out appoggiatura in each of the sources. The intense and sombre mood of this movement probably meant that further ornamentation would be inappropriate.

Gavotte I has very few ornaments in any of the sources, perhaps because it is a relatively fast movement. The main difference between the ornaments in the sources concerns the quantity of grace-notes, which is higher in CBerlin and CVienna than the other sources, while CAMB and LCJSB have no ornaments at all. The five grace-notes in CBerlin and CVienna occur in identical places, but the one trill in CKellner is not present in the other sources.

There are no explicit ornaments at all in Gavotte II in any of the sources, although bars 15 and 16 in all of the sources can be considered to be written out turns.

There are no ornaments in the first section of the Gigue in any of the sources, but quite a few in the second section from bar 36, demonstrating a similar trend to that noted above in the Allemande for the ornamentation to increase in the second part of certain movements. CKellner has only the first 9 bars of the Gigue, and does not include any ornaments.

¹ None of the bars in the Allemande has a crotchet on the fourth beat, so there are no ornaments in the last column of the table.

6.5 Types of ornament in BWV 1011

6.5.1 Trills

All of the sources for BWV 1011 have a significant number of trills, with CBerlin and CVienna having the most and CAMB the least. The large number of trills in the sources provides some significant information about the performance practice for trills in Bach's time, covering most of the issues with trills which were listed in section 6.3. Carrington has provided a useful introduction to the trills in Bach's Cello Suites¹, with proposals on how to play the prefixes and endings of each trill, and reference will be made to his conclusions in this section where appropriate.

The trill indicated in the 'Explication' is given by the chevron '❖' symbol, but in the sources for BWV 1011 and BWV 1006 almost all of the trills are indicated by the letter(s) 't' or 'tr'. The only symbol which in any way resembles the chevron symbol in any of the sources for BWV 1011 or BWV 1006 which are discussed here is a very unclear mark in the second half of bar 39 of the Gavotte en Rondeau in VKellner, shown circled in the next example.

BWV 1006 Gavotte en Rondeau, Bar 39



VKellner

The only place where the chevron symbol appears in any of the sources for Bach's Cello Suites is in the first few bars of the Sarabande of the 2nd Suite, in the copy by Kellner, where it is mixed with 'tr' symbols. The AMB copy has fewer trills in this movement, but in the Berlin and Vienna copies of the same movement, trills are indicated with 'tr' symbols in each location where Kellner's copy has a chevron. This suggests that the copy by Kellner somehow represents an intermediate state between the copy by AMB and the Berlin and Vienna copies, which will be discussed in more detail in section 7.3.

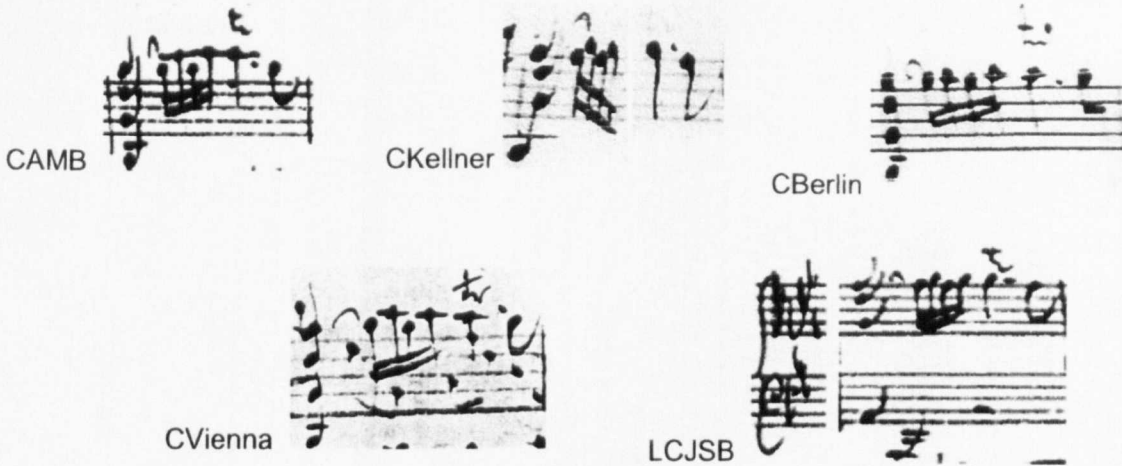
The chevron symbol is widely used in Bach's keyboard works. Both Quantz and C.P.E. Bach appear to consider the chevron and the 'tr' symbol as equivalent², so the choice between this symbol and the letter(s) 't' or 'tr' for indicating a trill may just have been a matter of custom, with keyboard players in Bach's day being more familiar with the chevron symbol, and stringed instrumentalists more familiar with the letter(s) 't' or 'tr'.

Each scribe of the sources for BWV 1011 has his or her own personal style for indicating a trill, based on the letter(s) 't' or 'tr', as illustrated in the next examples:

¹ Carrington, J. 2009.

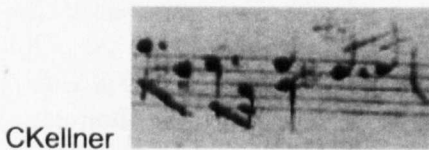
² Quantz, Joachim. 1752. pp.101-102, and Bach, Carl Philipp Emanuel. 1753. p.100.

BWV 1011/995 Prelude, Bar 16



The CKellner example for bar 16 shown above is a little faint, so a slightly clearer example taken from bar 26 is provided here also:

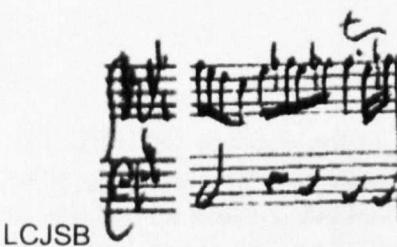
BWV 1011 Prelude, Bar 26



All of the trills in CAMB, CKellner, CBerlin and CVienna throughout BWV 1011 are drawn in the same way as the examples shown above. Most of the trills in LCJSB are also drawn like the example shown above, having a letter 't' and a short, slightly curly tail (which might also be considered to be a letter 'r'), apart from just two exceptions shown in the next examples:

BWV 995 Courante, Bar 21

Gigue, Bar 56



Comparing the trill from bar 21 of the Courante in LCJSB to the trill in bar 19 of the same movement in LCJSB, shown below, it can be seen that both trills are over dotted crotchets,

and end with two semiquavers forming a written-out turn, so it seems likely that Bach did not actually expect any difference in the performance of these trills, even though the symbol is differently drawn. It is nevertheless curious that he should have written the trills in the two examples shown above so differently.

BWV 1011/995 Courante, Bar 19



The trill in bar 56 of the Gigue in LCJSB, shown above, has a long tail similar to the trill in bar 21 of the Courante, but different from all of the other trills in LCJSB. It leads into the two demisemiquavers forming a turn at the end of the trill, again similarly to the trill in bar 21 of the Courante, but there seems to be no other special significance for the long tail of the trill, except perhaps to emphasise that the trill should be maintained for the full length of the tied note while the bass is moving. This time it has been written below the note to which it applies, probably because there was not much space for writing the trill sign above the note.

Most of the trill symbols in all of the sources for BWV 1011 are written over notes which are long enough to allow at least a few repetitions of the trill to be played, but in bar 26 of the Allemande in all of the sources there is a trill over a semiquaver where there is very little time to make a trill, as in the example from CKellner shown below. In bar 14 of the Allemande, there is also a similar very short trill indicated in CBerlin, CVienna and LCJSB. In performance, these trills would normally be reduced to a turn when combined with the following semiquaver, so it is a little surprising that they were not written with the turn symbol.

BWV 1011 Allemande, Bar 26



There are several examples of bars leading into cadences in the sources for BWV 1011 where some of the sources have trills and some do not, supporting Neumann's suggestion that it was common practice to play trills in such cases, and that the copyists sometimes did not consider it necessary to indicate them explicitly¹. Bar 17 of the Allemande is a typical

¹ Neumann, Frederick. 1994. pp.34-36.

example, where only CKellner indicates a trill on the dominant on the third beat leading to the cadence in the following bar, shown in the example below, while in the equivalent place in the second section of the Allemande (bar 35) a cadential trill is shown in CBerlin, CVienna and LCJSB on the third beat (but not in CAMB or CKellner). In both bars, it seems likely that all of the copyists assumed that a trill would be played on the third beat, whether or not they actually wrote it in explicitly.

BWV 1011 Allemande, Bars 17-18¹



CKellner

The trill in bar 4 of Gavotte I of CKellner occurs on the tonic chord of C minor which terminates the first phrase (in this case, not on the preceding dominant), illustrated below, and could imply that Kellner expected other chords in similar circumstances such as bar 24 also to have a trill. None of the other sources has a trill in this bar, but LCJSB has a written-out appoggiatura, also shown below, which suggests that Bach intended that at least some kind of ornament should be played there, and may also imply that Bach expected the performer to play more appoggiaturas than were actually written in the manuscript.

BWV 1011 Gavotte I, Bars 1-4

CKellner

LCJSB

In bar 33 of the Prelude a trill is indicated in all of the sources, but the sources differ in indicating which note should be trilled. CAMB and LCJSB have the trill on the note leading to

¹ The last note of bar 17 in the Allemande is given as an A by Kellner, but as a G in all of the other copies, so Kellner may have been confused by the scordatura here. Scordatura errors are discussed in chapter 3.

the cadence, CBerlin and CVienna have it on the cadential note itself, and CKellner has it in the middle of the following semiquaver group. A trill on the first quaver seems to be the most desirable option because there is not only more time to make the trill on a quaver than on a semiquaver, but it also strengthens both the cadence and the effect of the hemiola, and indeed most modern editions (including both versions given by the NBA) place the trill according to this option. The intended speed of the fugal section of the Prelude probably meant that there would be no time to end this trill with a turn.

BWV 1011/995 Prelude, Bars 32-33



CAMB



CKellner



CBerlin



CVienna



LCJSB

Why was a trill indicated in all of the sources in bar 33 of the Prelude, but in bars 78 and 182 a trill is only given in the later anonymous copies? Perhaps it was taken for granted by Kellner and AMB that trills would be played at the cadence points in bars 78 and 182, so they did not bother to indicate them explicitly, as suggested by Fuchs and Neumann¹? The execution of a trill in bar 33 may not have been so obvious for contemporary performers because of the large leap which precedes it, so all of the copyists (and therefore probably Bach himself in his original autograph(s) from which they were copying) may have felt that it should be indicated explicitly.

In bar 23 of the Courante, there are some trills on the second and third minim beats which typify the differences between the sources, as illustrated below. CAMB has a trill on the second beat only, CKellner has one on the third beat only, in CBerlin and CVienna the trills have been 'tidied up' so that there is a trill on both beats, and in LCJSB there is a grace-note before the second beat and no trill in the bar at all.

¹ Fuchs, Ingrid. 1981. pp.625-627, and Neumann, Frederick. 1994. p.34.

BWV 1011/995 Courante, Bar 23-24

CAMB



CKellner



Cberlin



CVienna



LCJSB



Concerning the required prefixes to trills, Neumann has suggested that¹:

As a rough rule of thumb, a trill on the pitch of its preceding note will mostly suggest an upper-note start and so will one that follows a falling third; a trill slurred to its preceding neighbour will always start on the main note.

In the sources for BWV 1011 a grace-note has sometimes been included before the trill, for instance in bar 20 of the Allemande of LCJSB (see example below), and where this happens the grace-note is invariably a second higher than the main note, suggesting an upper note start (but not clarifying whether it should be played before or on the beat).

BWV 995 Allemande, Bar 20

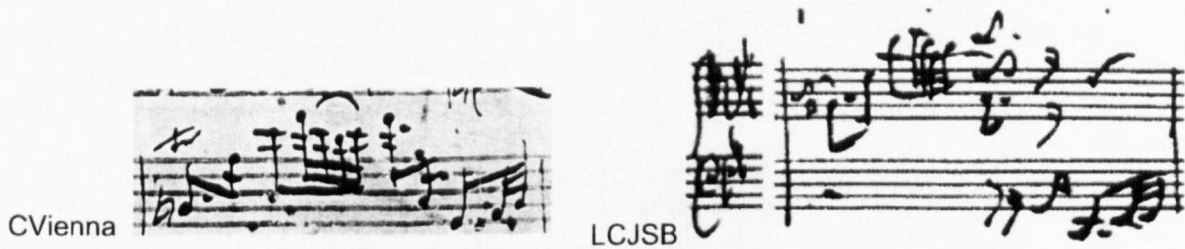
LCJSB



¹ Neumann, Frederick. 1994. p.31.

Similarly, the Allemande, Courante and Gigue in LCJSB contain some grace-notes a second higher than the main note, where at least one of the other sources has a trill, suggesting that also these trills were expected to start on the upper note, but they were abbreviated to grace-notes in LCJSB. A typical example of this is bar 31 of the Allemande, illustrated below, where all of the sources for cello have a trill without grace-note prefix (only CVienna is shown here, as it is the clearest in this bar), but LCJSB has a grace-note and no trill.

BWV 1011/995 Allemande, Bar 31



As there are no examples which clearly indicate a main note start to the trill, it might be assumed that all of the trills should start on the upper note. Indeed Quantz indicates that, in his circle, trills were normally started on the upper note of the trill¹. However, it is also possible that the presence of explicit indications for an upper note start in these examples from BWV 1011 and BWV 995 implies that this was not the norm and that the other trills should start on the main note.

Thus, for the prefixes of trills, Neumann² may well be right that there are no strict rules to define how a trill should be started in Bach's music, except where an indication has been provided as in the examples quoted above. Carrington³ has proposed prefixes for all of the trills in the Cello Suites by trying to apply harmonic considerations, but his suggestions are not always convincing.

For many of the trills in the sources for BWV 1011, such as bars 19 and 21 of the Courante which have been illustrated above, there is a written-out indication in all of the sources of the required ending by means of quavers, semiquavers or demisemiquavers which either rise or fall by an interval of a second from the main note of the trill. Where endings are indicated, the sources seem to be unanimous, so it can probably be safely assumed that this is how Bach indicated them in his original manuscript(s), and that he was careful to write them out to ensure that there would be no confusion about how they should be executed.

However, there also several cases where it is not clear what ending might have been expected, such as in bar 16 of the Prelude:

¹ Quantz, Joachim. 1752. p.103.

² Neumann, Frederick. 1978. pp.312-314.

³ Carrington, J. 2009.

BWV 1011 Prelude, Bar 16

CAMB



In other cases, a new voice of the polyphony is about to start, so a break is needed after the trill and it is likely that no particular ending would have been expected, such as in bar 20 of the Allemande illustrated above.

For cellists there is an important question about how to perform the trill on the third minim beat of bar 23 in the Courante in CKellner, CBerlin and CVienna. It is written over a chord G, d, in which both of the main notes could be played on open strings of the cello (whether or not the cello is tuned in scordatura as required for CAMB, CBerlin and CVienna).

BWV 1011 Courante, Bar 23

CBerlin



In modern performance on a stringed instrument it is unusual to use an open string for the main note of a trill (and this is also discouraged by Mozart¹). This could be avoided here by making a move into third or fourth position in order to play the d and the G on stopped strings. However, there are other trills in the Cello Suites (notably in bar 13 of the Sarabande and bar 17 of Menuet I, both in the D minor Suite BWV 1009) where a trill with a main note on an open string seems to be required in order to avoid an even more awkward stopped alternative, so it may have been a more common practice in Bach's time to perform trills on the open string than Mozart's guidelines would suggest.

Having reviewed the trills in the sources, it is interesting to consider the following quotation from Leisinger²:

At first sight, the principles found in [CKellner] on the one hand and in [CBerlin] and [CVienna] on the other hand seem to be quite different. Whereas we find many additional appoggiaturas preceding longer and structurally important notes in the two later sources, Kellner clearly prefers trills in these instances. A closer view reveals, how-

¹ Mozart, Leopold. 1756. p.190.

² Leisinger, Ulrich. 2000. Critical Commentary. p.9.

ever, that in both cases the same principle is applied: the main note is prepared by its upper neighbouring note.

In fact, there are only three examples where CKellner has a trill and CBerlin and CVienna have a grace-note, in bars 19 and 32 of the Allemande and in bar 4 of the Courante. Out of the total of 20 trills in CKellner, and 28 and 25 grace-notes in CBerlin and CVienna respectively, the fact that in only three cases CKellner has a trill where the other sources have a grace-note suggests that the evidence that 'Kellner clearly prefers trills' is not very strong. Additionally, the presence of a trill in CKellner is not necessarily a sign that Kellner himself inserted the trill on his own initiative because it may well have been present in the original source from which he was copying.

6.5.2 Grace-notes

The greatest difference between the quantities of ornaments in the sources for BWV 1011 concerns the grace-notes, which are scarce in CAMB and CKellner but relatively frequent in the other three sources, see Figure 6-2 above. Fuchs has shown that the scarcity of grace-notes in CAMB and CKellner continues throughout the copies by AMB and by Kellner of all of Bach's Cello Suites, with only one grace-note in AMB's copy and three in Kellner's copy in the Cello Suites other than BWV 1011¹. The more numerous grace-notes in LCJSB, produced at about the same time as CAMB and CKellner, are more likely to be due to the nature of the lute, on which the notes quickly die away unless the strings are plucked again in order to execute the grace-notes.

Although so many grace-notes are written explicitly in CVienna and CBerlin, it seems likely that the copyists of these manuscripts expected at least an additional 16 grace-notes to be played, because they both show grace-notes in only the first three bars of Gavotte I (see example from CBerlin below), apparently implying that similar bars later in the movement should be similarly ornamented. The rondeau form of this movement makes it especially likely that this was the case.

BWV 1011 Gavotte I, Bars 1-3



In bars 9-11, 13-16, 33-34, which are rhythmically similar to bars 1-3, no ornaments are shown in CBerlin or CVienna, as can be seen in the example below, but they could all be played with grace-notes like those indicated in bars 1-3:

¹ Fuchs, Ingrid. 1981. p.651.

BWV 1011 Gavotte I, Bars 9-11

CBerlin

Similarly, CKellner includes a trill in bar 4 of Gavotte I, which is not in any of the other sources, but may indicate that Kellner expected the same trill to be played in similar bars throughout the movement.

Leisinger's edition shows grace-notes in the first three bars, following CBerlin and CVienna, but no editions seem to have the trill in bar 4 which is indicated in CKellner, and Beiswenger's edition has no ornaments at all. There do not seem to be any editions which show the grace-notes or the trill persisting throughout the movement.

Quantz says that the performer should be aware that a grace-note should be played, even if it is not written, when one or more short notes are followed by a long note in the same harmony, in which case a grace-note should be played before the long note¹, although Quantz is not clear whether this should be played on or before the beat. This description appears to apply to bars 1-3 of Gavotte I, illustrated above, and to the subsequent bars in a similar style.

Quantz also says that if a grace-note is indicated as a semiquaver, then this usually means that it is to be played rather short, but he goes on to say that the grace-note is usually indicated by a quaver which should take half the length of the following principal note, and that it takes two-thirds of the length of the following note if that note is dotted².

All of the grace-notes in all of the sources for BWV 1011 are written as small quavers, except for just one case in each of CAMB and CKellner (in bar 11 of the Allemande and bar 4 of the Courante respectively), where the grace-notes are shown as small semiquavers. The example from CAMB is shown in the next extract, and the example from CKellner is shown later in this section.

BWV 1011 Allemande, Bar 11

CAMB

This might be taken to suggest that these particular grace-notes were expected to be played rather shorter than those indicated by quavers. However, the other sources indicate the

¹ Quantz, Joachim. 1752. pp.96-97, paragraph 12.

² Quantz, Joachim. 1752. p.95, paragraphs 7 and 8.

grace-notes in the same locations with quavers, and there seems to be no obvious reason why these particular grace-notes should be played short, considering that the main notes in both cases are relatively long. It therefore seems likely that the semiquavers have no special significance in these cases.

In comparison, the grace-notes in VJSB, VAMB, VKellner and LVSB are all written as quavers.

C.P.E.Bach mentions that in his time it had become customary to indicate the true length of the grace-note in the musical text, while still writing it small, and that an earlier convention was that grace-notes were mostly written as quavers regardless of how long they should actually sound (as mostly occur in the manuscripts discussed here)¹. Despite the variability which he mentions, his rules for the length of the grace-notes seem to agree with those of Quantz².

Neumann makes an important and perhaps controversial proposal that grace-notes were often intended to be played short in Bach's music, and sometimes before the beat³:

Whenever Bach wanted an appoggiatura of more than an 8th-note length, he had to write it out in regular notes because such desired interpretation would not have been understood from the symbol.

Neumann supports this statement with a large body of evidence based on the need to avoid parallels when executing appoggiaturas, and to synchronise with the bass line. He goes on to show that Bach sometimes wrote out pre-beat grace notes as full-size notes, and suggests that this may mean that Bach expected at least some of his small-note grace-notes to be played before the beat.


In bar 36 of the Allemande and bar 4 of the Courante of BWV 1011 there are grace-notes indicated as small notes in front of a crotchet in one or more of the sources for cello, but they have been written out as large-note appoggiaturas in the equivalent bar in LCJSB. The example from the Courante is shown below as it appears in all of the sources, also illustrating the single semiquaver grace-note which occurs in CKellner (mentioned above).

¹ Bach, Carl Philipp Emanuel.1753. p.87.


² Bach, Carl Philipp Emanuel.1753. p.90, paragraph 11.

³ Neumann, Frederick. 1978. pp.124-126.


BWV 1011/995, Courante Bar 4




CMB




CKellner



CBerlin



CVienna



LCJSB

The semiquaver in CKellner may indicate that Kellner expected this grace-note to be played short, but the written-out version in LCJSB suggests that Bach expected the grace notes to be played on the beat and to take half the length of the main note, if the execution is supposed to be the same on the lute as on the cello. This latter interpretation is consistent with the guidelines for accented appoggiaturas given in the 'Explication', and in the later treatises on performance practice¹.

Bars 6 and 20 of the Courante in LCJSB provide examples of grace-notes before a dotted note. If Bach expected these grace-notes to be played in the same rhythm as the equivalent notes in the sources for cello (see next example), then they should only be played for the length of a quaver, starting on the beat, and not for a crotchet, i.e. for only one third of the length of the main note, not two-thirds. This would be contrary to the indications of C.P.E.Bach, Quantz and Mozart, but it would conform with Neumann's suggestion mentioned above that Bach's grace notes should not be played too long.

¹ Bach, Carl Philipp Emanuel. 1753. pp.87-89, Quantz, Joachim. 1752. pp.95-97, and Mozart, Leopold. 1756. p.167.

BWV 1011/995 Courante, Bar 20



CVienna




LCJSB


As with the prefixes to trills, the examples shown above could be interpreted to suggest that all of the grace notes should come on the beat and should take a value of half the following note, or a third if the following note is dotted, but it could also be claimed that the very fact that explicit written-out indications were given for these grace-notes in some of the sources implies that this was not the norm and that other grace-notes should be played differently.

Although most of the grace-notes in the sources for BWV 1011 and BWV 1006 are indicated an interval of a second higher than the main note (so they are 'falling' grace-notes), there are also a few rising grace-notes in LCJSB, LVJSB, CBerlin and CVienna where the grace-note is an interval of a second below the main note, either repeating the previous note, or filling in the gap if the previous note was a third below the next note. An example occurs in bar 6 of the Courante, shown below, where LCJSB has a rising grace-note which repeats the previous note at the start of the third minim beat:


BWV 1011/995 Courante, Bar 6




CAMB




CKellner



CBerlin



CVienna



LCJSB

As already illustrated above by bar 20 of the Courante, bar 6 is another example where the sources for cello seem to imply that the grace-note before a dotted crotchet in LCJSB should be played for only one third of the length of the main note, not two-thirds.

6.5.3 Mordents

Amongst all of the sources for BWV 1006 and 1011 considered here, mordents only occur in the two lute manuscripts, LCJSB and LVJSB. Neumann comments that 'Bach prescribed mordents only for the keyboard', but it seems from these manuscripts that Bach also occasionally prescribed mordents for the lute¹.

In LCJSB there are just two mordents, of which the first occurs in bar 3 of the Prelude, where none of the other sources has an ornament, and it is actually the first ornament in the manuscript:

BWV 995 Prelude, Bar 3



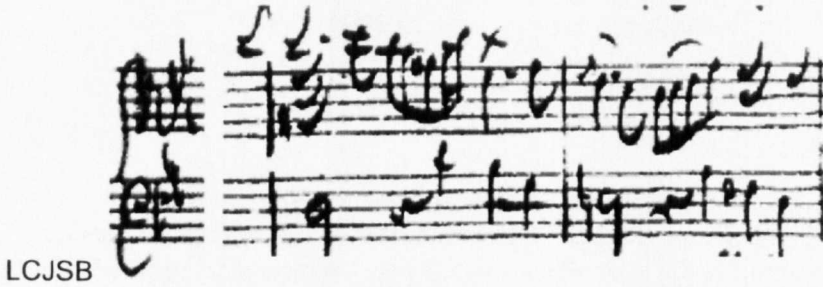
This mordent is at the beginning of a new phrase, and it occurs at the start of a short ascending passage, which was common practice for mordents in Bach's time², so it seems safe to assume that this is a genuine mordent and not a carelessly-drawn trill. It may have been introduced here in LCJSB on a comparatively long note to help to sustain the sound on the lute.

The second mordent in LCJSB occurs in bar 13 of the Courante:

¹ Neumann, Frederick. 1978. p.441.

² Emery, Walter. 1981. p.21

BWV 995 Courante, Bars 13-14



The other sources have no ornament at this place, and this sign certainly seems to be different from the trills shown elsewhere in LCJSB. However, as the last minim beat of this bar is so similar to bars 10 and 18, where trills are indicated in LCJSB, and it leads to the cadence in bar 14, it is possible that Bach really intended a trill to be played here. This is supported by Emery, who notes that a mordent is usually not appropriate in cadential contexts¹.

In LVJSB, there is just one mordent, in bar 5 of the Loure.

Considering the large number of mordents in Bach's keyboard works such as the Partitas, and that mordents are comparatively easy to execute on a lute or a bowed string instrument, it is surprising that there should be none in the sources for cello of BWV 1011, and that there should be so few mordents indicated in LCJSB and LVJSB. As the first ornament in LCJSB is a mordent, it is possible that Bach expected the performer to follow the example and play mordents in similar places throughout the Suite and simply did not write them into the musical text.

6.5.4 Turns

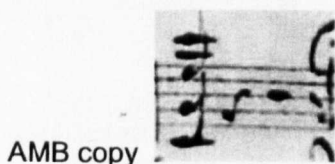
Turns occur twice in LCJSB and once in CAMB (but not in the same location), and in each case if a turn is played it has a considerable impact on the melodic line. The symbol used in each case is the same as the 'cadence' symbol used in the Explication. It is shaped like a reversed letter 'S', and is more vertical than the turn symbol which is used in music of later periods.

The single turn in CAMB occurs in bar 5 of the Prelude, and it is the first ornament in this manuscript. The other sources for BWV 1011 have no ornament at this location.

¹ Emery, Walter. 1981. p.21.

BWV 1011 Prelude, Bars 5-6

In the editions by Leisinger and Beisswenger it is assumed that this symbol indicates a crotchet rest on the second crotchet beat in the middle or the upper voice, and it is not even discussed in the critical commentaries. It does indeed slightly resemble the crotchet rest symbol which AMB has written in other parts of her copy of the Cello Suites, such as the end of the Prelude of the 4th Cello Suite BWV 1010:

BWV 1010 Prelude, Bar 91

However, these rest symbols are a mirror image of the symbol in bar 5 of the Prelude, so it seems unlikely that they could have the same meaning. In similar bars in CAMB where there is a leap between voices, such as bars 3, 7 and 18 of the Prelude, there is neither a turn nor a rest. It seems to be a genuine turn and was probably intended to be performed before the beat because the symbol has been written before the main note.

A turn at this point makes a significant difference to the character of the opening of the Suite and is therefore of considerable importance. Eppstein ignores this turn and does not mention it in his critical commentary. Schwemer and Woodfull-Harris apparently agree that it is a significant ornament because they show it as a turn in their edition. However, they show it above the main note, not before it, and they make no comment about it in their critical commentary.

There are written-out turns in the Prelude of BWV 1011 just a few bars later (in bars 6 and 9, see bar 6 illustrated above) in all of the sources, so a turn in bar 5 would certainly not be out of character. As this passage is in F minor, the upper note of the turn should be *db'*. Bach is known not to have indicated chromatic alterations for his ornaments, relying on the performer to work them out¹. However, for a cello tuned in *scordatura*, the turn in bar 5 of CAMB would be impractical for most cellists, requiring a stretch beyond the reach of a normal hand. It would however be rather easy to play it on a normally-tuned cello. Thus, this turn may be a residue from an early version of the Suite which was not in *scordatura*, and AMB copied it without realising that for a cello in *scordatura* it would be impossible to play.

¹ Carrington, J. 2009. p.134.

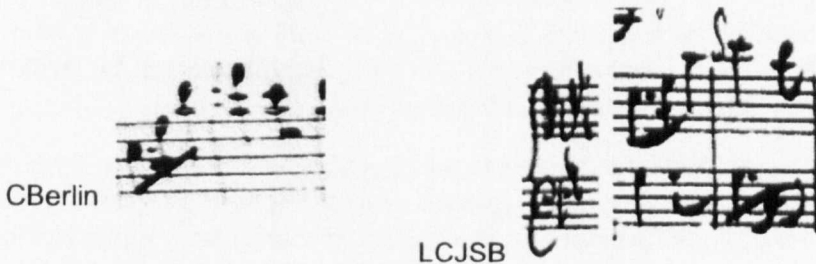
The first ornament in LCJSB which resembles a turn occurs at the start of bar 14 of the Allemande, as illustrated in the extract below, where the sources for cello do not have any ornaments. It is partly obscured by the first note of the bar and might be intended to be a grace-note, but it has been written with a smoother curve than the other grace-notes in the Allemande (for example, the grace-note which occurs later in the same bar) and seems to be intended to be a different ornament. However, Koonce and Hoppstock show this ornament as a grace-note.

BWV 995 Allemande, Bars 13-15



The other turn in LCJSB occurs in bar 36 of the Gigue. CAMB and CVienna have no ornament at this location, but CBerlin and CVienna both have grace-notes, as shown in the next extracts:

BWV 1011/995 Gigue, Bars 35-36




As with the example in the Allemande, this ornament in LCJSB does seem to be intended to be different from the grace-notes in the remainder of the movement.


6.5.5 Vibrato

Scholars have often debated the meaning of the wavy line which has been drawn over two chromatically rising dotted crotchets in bars 55 and 56 of the Gigue in both CAMB and CBerlin, illustrated below. This is the only occurrence of a wavy-line ornament of this kind in the sources for Cello Suites, although other wavy lines occur which seem to be articulation marks, and are discussed in the articulation chapter.


BWV 1011/995 Gigue, Bars 55-56




CAMB



CBerlin



CVienna



LCJSB

In these bars, the wavy line is combined with trill symbols in CBerlin, but in CVienna there are only trills (no wavy line). In LCJSB, bar 55 has been altered by the addition of an extra voice, and in bar 56 there is only a trill with no wavy line, but the different technique of the lute compared to the cello means that the version of these bars provided by LCJSB is not a reliable indicator as to how they should be performed on the cello. CKellner stops after bar 9 of the Gigue, so cannot be used as a reference.

A similar wavy-line ornament occurs over the two chromatically rising crotchet chords in bar 22 of the Grave of the Sonata for Unaccompanied Violin in A minor BWV 1003 in both the autograph copy and the copy by AMB:

BWV 1003 Grave, Bar 22



VJSB

In this case, there are actually wavy lines above both of the upper and lower notes, and there is also a 't' symbol at the end of the upper wavy line, indicating a trill. Neumann comments on these ornaments¹:

This spot has puzzled performers and editors alike and given rise to the most varied misinterpretations. Mostly the wavy line is understood to mark a trill, which on several counts makes no sense. First, a trill in sixths with two whole tones was not in the vocabulary of pre-Paganinian violin technique; second, the clear trill symbol over the

¹ Neumann, Frederick. 1994, p.29.

quarter-note would make no sense if the preceding notes were already trilled; third, the wavy line was a trill symbol only for the keyboard, not for strings; fourth, Bach used the wavy line repeatedly for voices clearly to mean vibrato, and did so invariably in chromatic progressions, with their intensely emotional overtones..... There are French, Italian and German precedents for the vibrato meaning of the wavy line other than for the keyboard. The vibrato meaning is unquestionable here notably in the Italo-German tradition vibrato was often done by bow pulsations instead of, or in addition to, left hand pulsations.....A similar vibrato might have been intended for the single vibrato symbol in the Gigue of the C minor Cello Suite.

Another rather similar example of a wavy line occurs in the autograph manuscript of Bach's Gamba Sonata BWV 1027¹, in bar 26 of the first movement. In this case it is again over two long notes, like the examples in BWV 1003 and BWV 1011 discussed above, but here there is a 't' before the wavy line, clearly meaning a trill, and the notes descend chromatically (C# to C).

BWV 1027 Adagio, Bars 26-27



Autograph manuscript

Mozart describes the use of vibrato, which he terms 'tremolo' and recommends it especially for use in preparing cadences², but his description is rather unclear and he does not indicate any special symbol to represent vibrato. Quantz mentions the use of vibrato on long notes, but he only indicates a vibrato symbol for use in keyboard music (referred to as the *Bebung* in German), consisting of a long note over which several dots are written under a slur, to be performed with a gentle shake of the finger, and he says that 'the best effect is achieved when the finger withholds its shake until half of the value of the note has passed'³. Brown suggests that several dots under a slur over a long note sometimes indicated a tremolo for performers of stringed instruments⁴.

Thus, the available literature does not give clear guidance on the use of vibrato as an ornament, nor on a corresponding symbol.

¹ BWV 1027 is thought to have been composed during Bach's period in Köthen, and the manuscript is now held in the Preussischer Kulturbesitz in the Staatsbibliothek in Berlin as Mus. MS. Bach P.226.

² Mozart, Leopold. 1756. pp.203-205.

³ Quantz, Joachim. 1752. p.165.

⁴ Brown, Clive. 1993. p.603.

Although Neumann describes the vibrato meaning as 'unquestionable' in the example from BWV 1003, and by implication also in BWV 1011, this may be incorrect because the 't' before the wavy line in the example from BWV 1027 suggests that a trill was intended, and should be extended over the two notes under the wavy line. Furthermore, the similarity of the examples in BWV 1003, 1011 and 1027 (in which the only differences are the presence and position of the 't' symbol), seems to suggest that it is more likely that in all of these cases a long trill was intended, and that Bach simply omitted the 't' symbol in BWV 1011 (or at least it was not copied from his original manuscript(s) into the surviving sources).

Most modern editions of the Cello Suites, such as Leisinger, provide bars 55 and 56 of the Gigue in BWV 1011 with two trills, as it appears in CVienna, without any further discussion in the critical commentary. This is perfectly playable and does indeed seem to be the interpretation which is most likely to have been Bach's expectation.

6.6 Ornaments in the sources for the E major Partita for Solo Violin, BWV 1006

The quantity of each type of ornament written explicitly in the Gavotte en Rondeau and Menuet I of BWV 1006 in the selected sources is given in Table 19. In both movements, it can be seen that Bach went to some considerable trouble to add ornaments (especially grace-notes) while making the lute transcription, LVJSB.

All five trills in the Gavotte en Rondeau in VJSB and VAMB are identical and in consistent locations on the first beat of the bar after the two crotchet upbeat at the beginning of a phrase. However, the single trill in VKellner occurs in a location where the other copies have no ornament, and in LVJSB both of the trills occur in places where the other manuscripts have no ornament. LVJSB has many more grace-notes than the other sources, including a falling grace-note in every place where VJSB and VAMB have a trill, suggesting that the trills should start on the upper note but were abbreviated to grace-notes in LVJSB. Similar trends were discussed above for the sources for BWV 1011, where LCJSB has many more grace-notes than CAMB and CKellner.

A possible explanation for the greater number of trills in the Gavotte en Rondeau than in Gavotte I of BWV 1011 may be that Bach considered the violin to be a more agile instrument than the cello, so it could more easily manage the trills in this comparatively fast movement.

In Menuet I there are rather fewer ornaments in all of the sources than in the Gavotte en Rondeau, but the same general trends can be seen, with just one grace-note in each of VJSB, VAMB and VKellner, but more ornaments in LVJSB (one trill and nine grace-notes). The single grace-note in each of the violin sources is in the same location, and also occurs at that location in LVJSB. All of the grace-notes in all of the sources fall by a second to the main note.

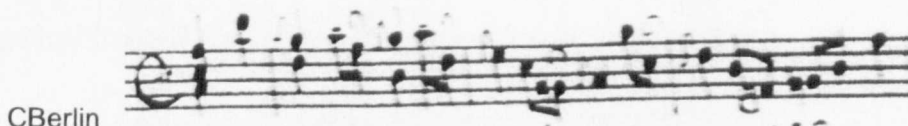
This comparison suggests that the ornaments in VAMB have been reliably copied from VJSB (or from another source which had identical ornaments), but with only five trills and one grace-note within the two movements in each source this is not very conclusive. However, in the other movements of BWV 1006, and indeed in all of the other Violin Solos, the autograph copy and the copy by AMB seem to have exactly the same ornaments. It can be deduced from this that AMB was a reliable copier of ornaments, and therefore that the or-

naments in CAMB may well be a reliable guide to the ornaments which were in the original source of BWV 1011 from which it was copied.

However, the ornaments in VKellner and LVJSB are significantly different from those in the other sources for BWV 1006, suggesting either that they were copied from different sources which had different ornaments, or that either Kellner or Bach changed the ornaments while producing these manuscripts. Similar conclusions can be deduced for CKellner and LCJSB with respect to the original sources from which they were derived.

A very important observation can be made by comparing the grace-notes which occur in bars 1-3 of Gavotte I in CBerlin and CVienna to the very similar grace-note added at the start of the first whole bar of the Gavotte en Rondeau in LVJSB, illustrated in the next extracts (CVienna is not shown here, but has identical ornaments to those in CBerlin):

BWV 1011 Gavotte I, Bars 1-3



BWV 1006a Gavotte en Rondeau, Bars 1-2



The grace-notes shown here in CBerlin and CVienna do not occur in CAMB, CKellner or LCJSB. As already mentioned earlier in this chapter, they are only given in the first 3 bars of CBerlin and CVienna, probably with the intention that the performer should play them throughout in similar motifs. The single grace-note shown here in LVJSB does not occur in VKellner, but it does recur in LVJSB every time the opening motif recurs (five times). In VJSB and VAMB it is shown as a trill, not a grace-note.

In both of the above examples, the first grace-notes have been added to the first crotchet of the bar, after a 2-crotchet upbeat, and they are followed by two descending quavers, so the motifs and ornamentation are very similar. They make an important contribution to the character of the opening of the movement. Considering that LVJSB is an autograph manuscript by Bach (produced in the mid-1730s), this may suggest that the additional grace-notes in CBerlin and CVienna may reflect Bach's later tastes, not the idea of a copyist. Although not in itself very strong evidence, this suggests a very important conclusion that CBerlin and CVienna may have been derived from an autograph copy by Bach of the Cello Suites, possibly representing a later revision of the Cello Suites compared to the original source(s) from which CAMB and CKellner were derived.

VKellner has only one trill while VJSB has five trills, supporting the evidence found in section 6.5.1 that Kellner had no particular preference for trills, contrary to the suggestion in Leisinger¹.

In the Gavotte en Rondeau of LVJSB, the trill in bar 63 is also over a crotchet and is drawn with a short curly tail like the example from VJSB shown above, but the trill in bar 82 is over a semibreve and has a slightly longer tail, perhaps to emphasise that the trill should be held on for the full duration of the note:

BWV 1006a Gavotte en Rondeau Bar 82



This trill in bar 82 of LVJSB is also the only trill in the Gavotte en Rondeau in any of the sources for BWV 1006 where the required ending has not been indicated. The semibreve is tied onwards throughout bars 82-85, and although LVJSB only gives the trill symbol in bar 82, most editions assume that the trill should be prolonged up to the end of bar 85. In bar 86, the upper voice jumps downwards by a fifth, and there is no link indicated to the previous bar to smoothen the jump.

The single trill in Menuet I in LVJSB has no indicated prefix or ending:

BWV 1006a Menuet I Bars 17-18



In this case, as the previous note is the upper note of the trill, it was probably expected to start the trill on the main note, and to perform an ending based on a turn.

¹ Leisinger, Ulrich. 2000. Critical Commentary. p.9.

6.7 Conclusions on the ornaments

BWV 1011 is the most heavily ornamented of all Bach's Cello Suites in all of the sources, but in the sources for cello the ornaments are of a very limited range of simple types, namely the trill, the grace-note, the turn and possibly the vibrato ornament. The ornaments in LCJSB are limited to the same range, with the addition of a very small quantity of mordents. A similarly limited range of simple ornaments can be seen in most works for strings by Bach from the same period, such as the Brandenburg Concertos, the Sonatas and Partitas for Unaccompanied Violin and the Sonatas for Viola da Gamba.

Most of Bach's keyboard works from the same period have a much wider range of ornaments (as for instance illustrated in the 'Explication' given by J.S.Bach in the 'Klavierbüchlein für Wilhelm Friedemann Bach', and in Bach's keyboard Partitas). Possible explanations for this wider range of ornaments in Bach's keyboard music could be:

1. Contemporary keyboard instruments could not sustain the notes at a constant intensity in the same way as bowed string instruments, so Bach may have felt a need to decorate his keyboard works with more complex ornaments in order to sustain the sound as long as possible, profiting from the relative ease with which complex ornaments can be executed on a keyboard instrument.
2. Most performers of bowed string instruments were trained as orchestral players, and in orchestras a more limited range of simple ornaments was employed because of the difficulty of synchronising more complex ornaments amongst multiple instruments, so it was not part of the performers' tradition and training to interpret complex ornaments. Keyboard performers on the other hand were probably more used to the complex ornaments which Bach has written in his keyboard works.

It seems likely that both of these factors played a role in Bach's decision to limit the range of ornament types in his music for violin and cello.

Of the sources for BWV 1011, CBerlin has the greatest quantity of ornaments of all types, while CVienna and LCJSB have a little fewer, and CAMB and CKellner have less than half as many. The large quantity of ornaments in LCJSB may partly be due to the need to sustain the chords longer on the lute, in a similar way to the keyboard as discussed above, and this theory is supported by the still more numerous ornaments which were added by the contemporary lutenist who produced LTAB. Similarly, LVJSB has more ornaments than VJSB, VAMB and VKellner.

It seems from the sources for BWV 1006 that AMB was a reliable copier of ornaments, and therefore that the ornaments in CAMB may well be a reliable guide to the ornaments which were in the original source of BWV 1011 from which it was copied. However, the ornaments in VKellner and LVJSB are significantly different from those in the other sources for BWV 1006, suggesting either that they were copied from different sources which had different ornaments, or that either Kellner or Bach changed the ornaments while producing these manuscripts. Similar conclusions can be deduced for CKellner and LCJSB.

All of the sources for BWV 1011 have a significant number of trills, with CBerlin and CVienna having the most, and CAMB the least. Each copyist has his or her own personal style for indicating a trill, and all of the trill symbols in all of the sources are based on the letter(s) 't' or 'tr'. The manuscripts provide no particular evidence for the existence of rules or conventions

about starting a trill on the main note or the upper note in Bach's music, except where an indication such as a grace-note has been provided in the music. However, for most of the trills there is a written out indication in all of the sources of the required ending, by means of quavers, semiquavers or demisemiquavers which either rise or fall by an interval of a second from the main note of the trill. Where endings of trills are indicated, the sources seem to be unanimous, so it can probably be assumed that this is how Bach indicated them in his original manuscript(s), and that he was careful to write out the endings of the trills to ensure that there would be no confusion about how they should be executed. There are several examples of bars leading into cadences in which some of the sources have trills and some do not, suggesting that it was common practice to play trills in such cases, and that the copyists sometimes did not consider it necessary to indicate them explicitly. Finally, for string players it is significant that the trills in bar 23 of the Courante suggest that in Bach's time it may have been common practice to perform trills with an open string as the main note.

The greatest difference between the quantities of ornaments in the sources concerns the grace-notes, which are scarce in CAMB and CKellner but relatively frequent in the other three sources. The scarcity of grace-notes in CAMB and CKellner is also apparent in the other Cello Suites copied by the same scribes. Most of the grace-notes are written as quavers, with just a very small number written as semiquavers, but the sources are inconsistent and there does not seem to be any particular reason for the semiquaver grace-notes to be played shorter than those shown as quavers. Although so many grace-notes are written explicitly in CVienna and CBerlin, it seems likely that the copyists concerned expected additional grace-notes to be played in Gavotte I, following the model given in the first three bars. Evidence in the sources suggests that grace-notes before a dotted crotchet were intended to be played for the length of a quaver, starting on the beat, and not for a crotchet as is often supposed today (this is contrary to the indications of C.P.E.Bach, Quantz and Mozart).

Amongst all of the sources for BWV 1006 and BWV 1011 considered here, mordents only occur in the two lute manuscripts, LCJSB and LVJSB. In LCJSB there are just two mordents, and in LVJSB there is only one. Considering the large number of mordents in Bach's keyboard works such as the Partitas, and that mordents are comparatively easy to execute on a bowed string instrument, it is surprising that there should be none in the sources for cello of BWV 1011, and that there should be so few mordents in LCJSB and LVJSB. No particular explanation for this has been found in this study. Indeed, as the first ornament in LCJSB is a mordent, it is possible that Bach expected the lutenist to follow this example and play more mordents later in the Suite.

Turns occur twice in LCJSB and once in CAMB (but not in the same location), and in each case if a turn is played it would have a considerable impact on the 'affekt' of the phrase. Modern editions for lute or guitar seem to treat the turns in LCJSB either as simple grace notes or as slides, although a turn may actually have been intended by Bach. The turn in CAMB (which occurs in bar 5 of the Prelude) is interpreted in many editions as indicating a rest in one of the upper voices, but the symbol is actually incorrectly drawn to be a rest (it is a mirror image of the normal rest symbol), so a turn seems really to have been intended. In scordatura this turn in CAMB is practically impossible to play (requiring a stretch which is too big for most hands), but it is quite easy to play on a normally tuned cello. Thus, this turn may be a residue from an early version of the Suite which was not in scordatura, and AMB copied it without realising that for a cello in scordatura it would be impossible to play.

There is a wavy line over chromatically rising dotted crotchets in bars 55 and 56 of the Gigue in CAMB and CBerlin, which is sometimes thought to be an indication of a 'vibrato' ornament, although most modern editions represent it with two trills, as it appears in CVienna. This wavy line ornament is the only one of its kind in the sources of Bach's Cello Suites, but similar cases occur in the autograph manuscripts of the Violin Sonata BWV 1003 and the Gamba Sonata BWV 1027. From all of these examples it seems likely that these long wavy lines were intended to indicate trills, not vibrato ornaments.

In the two most highly ornamented movements of BWV 1011, the Allemande and the Courante, the ornaments are not consistently applied to similar motifs in any of the sources, perhaps from a deliberate intention to achieve variety, but there are some general trends. For instance, in the first half of the bar, where there is often the beginning of a phrase, there are fewer ornaments, and if one is present then it is often a grace-note. If the first note of the bar is a crotchet, or longer, then it may have a grace-note or a turn, but rarely a trill. There are almost no ornaments on the second crotchet beat of the Allemande, perhaps because an ornament would create an emphasis which may have been judged undesirable on the weak second beat of the bar. In both movements, the second part of the bar tends to contain more ornaments, which are often cadential trills leading into the cadence on the first beat of the next bar.

In the Allemande and the Gigue the ornaments occur mostly well into the movement, suggesting that it may have been common practice with certain types of dance movement to state the main motifs of the movement initially as clearly as possible without ornaments, and then to decorate them more later in the movement.

Bach certainly went to some considerable trouble to add numerous grace-notes before crotchets in the Gavotte en Rondeau when producing LVJSB (in five out of six occurrences of the opening motif in this movement). Considering that LVJSB is an autograph manuscript by Bach (produced in the mid-1730s), this may suggest that the additional grace-notes in CBerlin and CVienna may reflect Bach's later tastes, not the idea of a copyist. Although not in itself very strong evidence, this suggests a very important conclusion that CBerlin and CVienna may have been derived from an autograph copy by Bach of the Cello Suites, possibly representing a later revision of the Cello Suites compared to the original source(s) from which CAMB and CKellner were derived.

7 Correlations and relationships between the sources for BWV 1011

7.1 Introduction

In section 1.2, the four fundamental questions behind this research were listed. In this chapter, the evidence provided in the previous chapters will be gathered to address the first two of those questions:

1. How are the surviving sources for BWV 1011 related to each other and to the original source(s) which may have existed in Bach's own hand?
2. Which of the surviving sources for BWV 1011 seem to provide the most reliable indications of the contents of the original source(s)?

The remaining two questions will be addressed in the next chapter.

7.2 Correlations

From the analysis in the preceding chapters of the notes, slurs and ornaments in the manuscript sources for BWV 1011, a mathematical assessment can be made to illustrate how similar each source is to the other sources. The similarity between each pair of sources will be referred to here as their level of correlation, and will be assessed separately for the notes, the slurs and the ornaments.

The objective of making the correlations is to obtain information about the original sources from which the surviving manuscripts were derived. A high level of correlation between two manuscript sources suggests that they may be derived from similar or even the same original source(s). Isolated copying errors or confusions with the scordatura in individual manuscripts can be ignored for this calculation because they would have arisen during the copying process and do not provide any significant information about the contents of the original sources.

Correlation of the notes between two sources will be assessed bar-by-bar. The notes in a particular bar in two sources are said to correlate if all of the notes have exactly the same pitch and length in both sources. This can be expressed as a percentage of correlating bars compared to the total number of bars either per movement or for the whole Suite, and taking account of the missing bars in the Sarabande and Gigue in CKellner. When comparing each source for cello with LCJSB, there is considered to be correlation if all the notes in a particular bar in the source for cello also occur in the same order and with the same length in the corresponding bar in LCJSB, taking account of the transposition for lute into G minor and ignoring extra notes in LCJSB which fill out the texture.

The bar-by-bar method is the only practical way to assess the correlation of the notes between the sources. Correlation of every individual note is not practical because in many bars the notes occur in the sources in different rhythms and in different quantities – in such bars it would not be possible to know which notes in one source should be correlated to those of another source. The sources do, however, generally have the same number of bars in each movement (apart from a couple of duplicate bars which seem to be copying errors and can be ignored for the purpose of making the correlations), so correlation at the level of

the bar is perfectly practical. However, the bar-by-bar method results in lower correlation statistics than would have been obtained if each note was compared individually. For instance, in a bar containing ten notes, if one source had just one different note compared to another source it would have a 90% correlation, but when counted by bar the whole bar is counted as uncorrelated.

Correlation of slurs has also been assessed bar-by-bar, meaning that the slurs in two sources are said to correlate if exactly the same notes are slurred together in both sources. No attempt was made to correct slurs in this calculation (for instance, by assuming that they have been shifted left or right), because it would corrupt the results with too much subjectivity – the slurs are assessed exactly as drawn. Sometimes it is difficult to say exactly which notes lie under a slur, for instance where the slur ends half-way between two notes, but it is assumed that any questionable decisions of this kind would cancel each other out statistically over the comparatively large number of slurs in these sources. The correlations are expressed as a percentage of the number of slurs in the source of each pair of sources having the greater number of slurs for that movement, e.g. if source A has n slurs, source B has m slurs where m is greater than n , and p slurs correlate between the pair, then the percentage correlation is given as $100 \times (p/m)\%$.

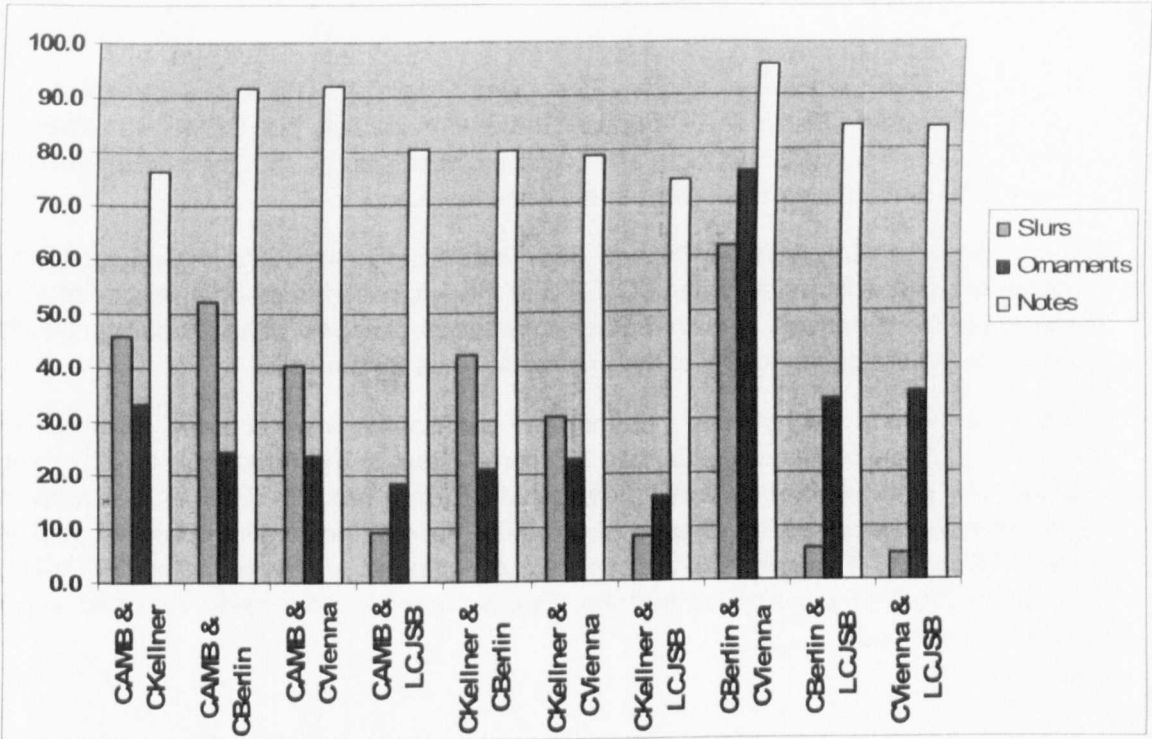
As with the notes, the bar-by-bar method is the only practical way to correlate the slurs. Correlation of every individual slur is not practical because in many bars the slurs in the sources concern different groups of notes, and occur in different quantities – in such bars it would not be possible to know which slurs in one source should be correlated to those of another source. Where a slur goes over one or more bar-lines (which is rare in BWV 1011), the sections of the slur concerning each bar have been considered as separate slurs for the purpose of calculating the correlation.

Correlation of the ornaments between two sources means that exactly the same type of ornament occurs in exactly the same place, ignoring slight differences in the style of writing the ornament symbol. Unlike the notes and the slurs, it is practical to correlate the individual ornaments because they are relatively rare.

The overall result of the analysis of the correlations is that the notes correlate more highly than the slurs and the ornaments, for each pair of sources, as illustrated in Figure 7-1 below.

Figure 7-1 Overview percent correlation between the slurs, ornaments and notes in the sources for BWV 1011

(best printed in colour)



It seems likely that the copyists would have attempted to copy the notes as accurately as they could from the original which was at their disposal in order to respect the text of the composer, so the relatively high correlations of the notes which can be seen in Figure 7-1 is not unexpected. However, the copyists may well have felt more freedom in adapting the slurs and the ornamentation according to their own ideas, following suggestions from performers, or just keeping up with contemporary tastes. Taste was certainly evolving rapidly in the period between the production of the earliest surviving source for BWV 1011 (CKellner produced in 1726), and the sources produced in the later 18th century (CBerlin and CVienna), and this may have had an influence on both the articulation and the ornamentation. This may well be the main explanation for the lower correlations of the slurs and ornaments between the sources, compared to the correlations of the notes.

The following additional observations can be made from consideration of Figure 7-1.

All aspects (notes, slurs and ornaments)

The highest correlations for all aspects occur between CBerlin and CVienna, demonstrating that these two sources are the most similar, and suggesting that they were derived from a common or closely related source(s).

The notes

CAMB correlates to more than 90% with CBerlin and CVienna. This is not so high as the correlation between CBerlin and CVienna, so it seems unlikely that CAMB was itself the common source from which CBerlin and CVienna were derived, but there does seem to be quite a close relationship between these three sources.

LCJSB correlates to 80% with CAMB and 85% with CBerlin and CVienna, suggesting a rather weaker relationship between LCJSB and the original sources from which the other manuscripts were derived, and that Bach introduced changes while producing LCJSB which were never applied to any of the original sources for the cello.

The lowest correlations are between CKellner and each of the other sources, ranging from 73 – 80%. Although this is higher than the correlations of the ornaments and the slurs between any pairs of sources, it still means that CKellner has 20 – 27% of bars containing different notes compared to each of the other sources, indicating quite a significant level of difference. This suggests a more distant relationship between the original source from which CKellner was derived and the original source(s) from which the other manuscripts were derived.

The slurs

The low correlation of the slurs between all pairs of sources (except CBerlin and CVienna) suggests that there is no single articulation unequivocally following Bach's intentions which can be deduced from these sources.

The correlations of the slurs between LCJSB and each of the four sources for cello is extremely low (less than 10%). Some of the longer slurs which occur in LCJSB and not in any of the other sources suggest that it may have been transcribed from a different original source (and maybe at a different time) than the original source(s) which were used as the basis for the surviving copies for cello. The low correlation (9%) between the slurs of LCJSB and CAMB appears to conflict with the observation of Butt that 'The markings in LCJSB follow roughly the same pattern as is found in Anna Magdalena's copy of the cello suites'.¹

The ornaments

The correlation of the ornaments shows a peak of 77% between CBerlin and CVienna, but between the other sources the average correlations are all less than 40%.

¹ Butt, John. 1990, p.181.

The lowest correlations occur between LCJSB and both CAMB and CKellner, probably because Bach introduced different and more numerous ornaments in LCJSB owing to the different technique of the lute compared to the cello.

LCJSB correlates more highly with CBerlin and CVienna than with CAMB and CKellner, perhaps because LCJSB was produced nearer in time to the original source(s) from which CBerlin and CVienna were derived.

The correlations between the notes, slurs and ornaments in the sources are illustrated in more detail in Figure 7-2, Figure 7-3 and Figure 7-4, showing the breakdown per movement. In these figures, the thicker dark black line through the middle with the large triangles indicates the average correlations between the notes of each movement for each pair of sources, while the other lines indicate the correlations for each individual movement, as indicated in the keys at the right of each figure.

Figure 7-2 Detailed percent correlation between the notes

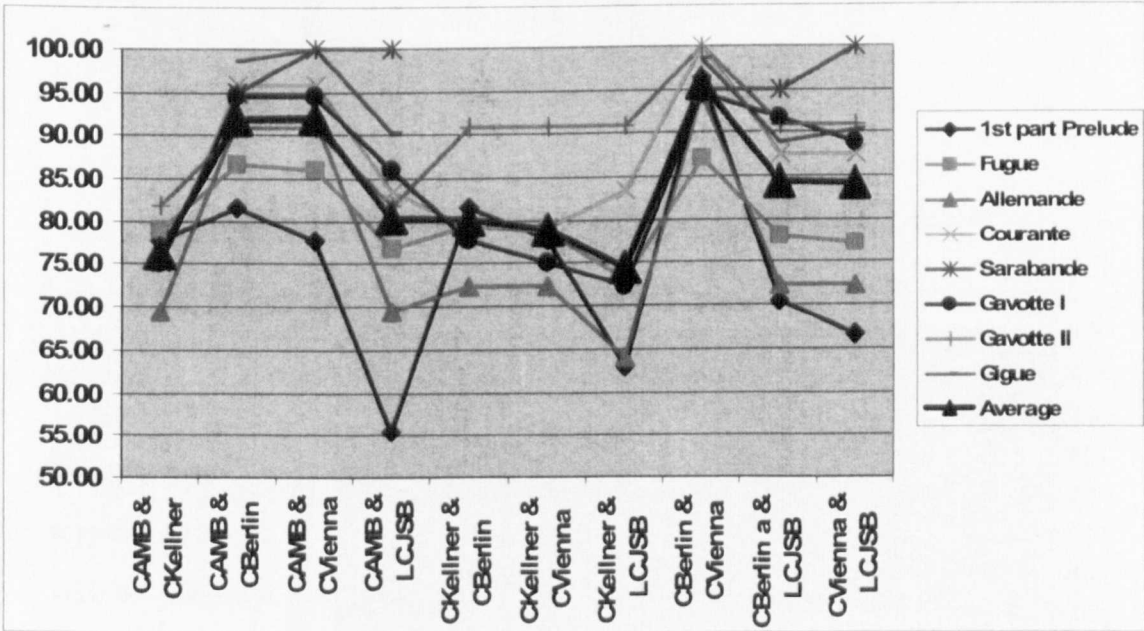


Figure 7-3 Detailed percent correlation between the slurs

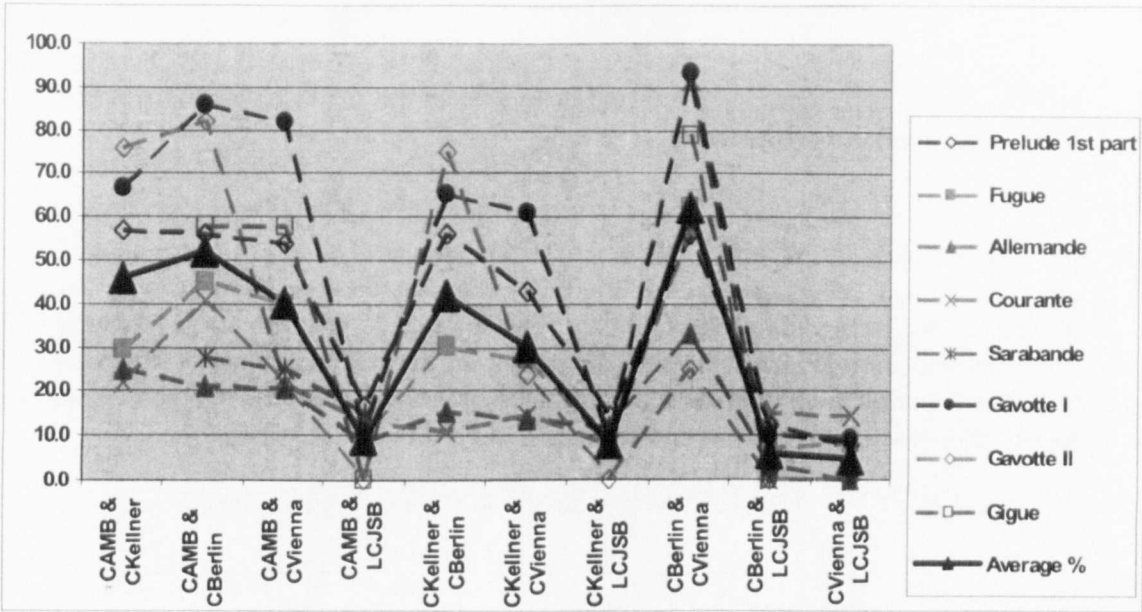
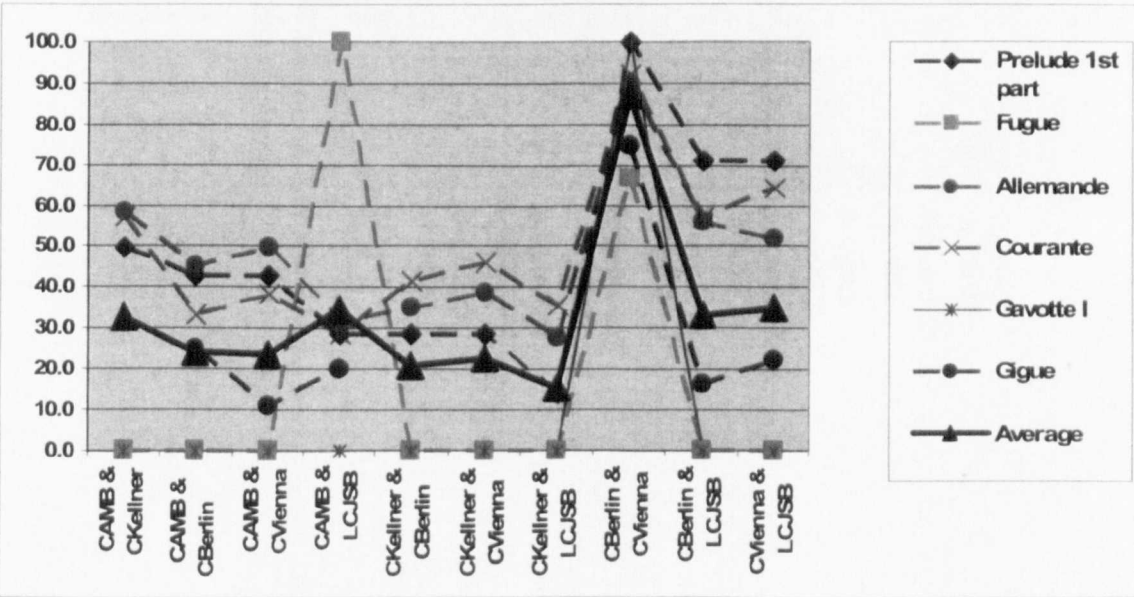


Figure 7-4 Detailed percent correlation between the ornaments



For the Sarabande and the Gigue, the lines are non-continuous in the figures above because these movements are missing in CKellner (except the opening nine bars of the Gigue), so no useful comparisons could be made between CKellner and the other sources. In

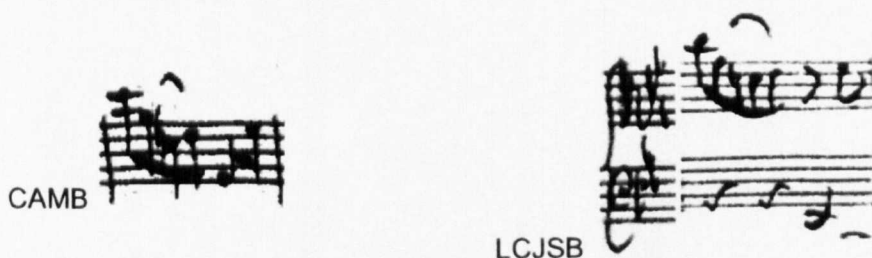
Figure 7-4 there is no line for the Sarabande because none of the sources have any ornaments in this movement.

Referring to Figure 7-2, it is probably not surprising that the more complex, slower movements tend to have the lowest correlations of the notes between the sources. This is especially evident in the first part of the Prelude and the Allemande. There is a much higher correlation between the sources in the movements having a simpler texture, such as the Sarabande, Gavotte II and Gigue. A strikingly low correlation of only 56% occurs between the notes in CAMB and LCJSB in the first part of the Prelude, and there are low correlations between CKellner and both CAMB and LCJSB in the Allemande due to differences in note lengths, note pitches and texture.

Referring to Figure 7-3, the correlations between the slurs in most of the pairs of sources are highest for Gavotte I and Gavotte II, which is probably because these movements have the simplest form and a regular, relatively fast pulse, giving little scope for varying the articulation. The Allemande, Courante and Sarabande all show low correlations of the slurs between most of the pairs of sources, the only exception being between CBerlin and CVienna where the slurs of the Sarabande have a very high correlation over 90%, and the slurs of the Courante have a medium correlation close to 60%. As with the notes, the movements showing the lowest correlations in the slurs are the slowest dance movements in the Suite, suggesting that the copyists may have felt that they could exercise some freedom in their articulation indications when the pulse is slow.

In the Sarabande, just four slurs in LCJSB are identical to those in CAMB, none of the slurs in LCJSB are the same as those in CBerlin or CVienna, and CAMB generally has the most varied and least consistent slurring of the available sources. Although CAMB and LCJSB only have four slurs which correlate exactly, there are several bars where their slurs are similar, with one slur being just slightly shorter than the other, such as in bar 3 of the Sarabande illustrated below. The slur in bar 3 in CAMB has been counted as a 2-note slur and the slur in LCJSB as a 3-note slur, because that is how they literally appear – so they are not counted as correlated, although the slur in CAMB may have been intended to extend over three notes. As there are several similar examples in all of the sources for the Sarabande, the correlation of the intentions of the copyists may be greater than the correlations shown in the Figure 7-3, at least in this movement.

BWV 1011/995 Sarabande, Bar 3



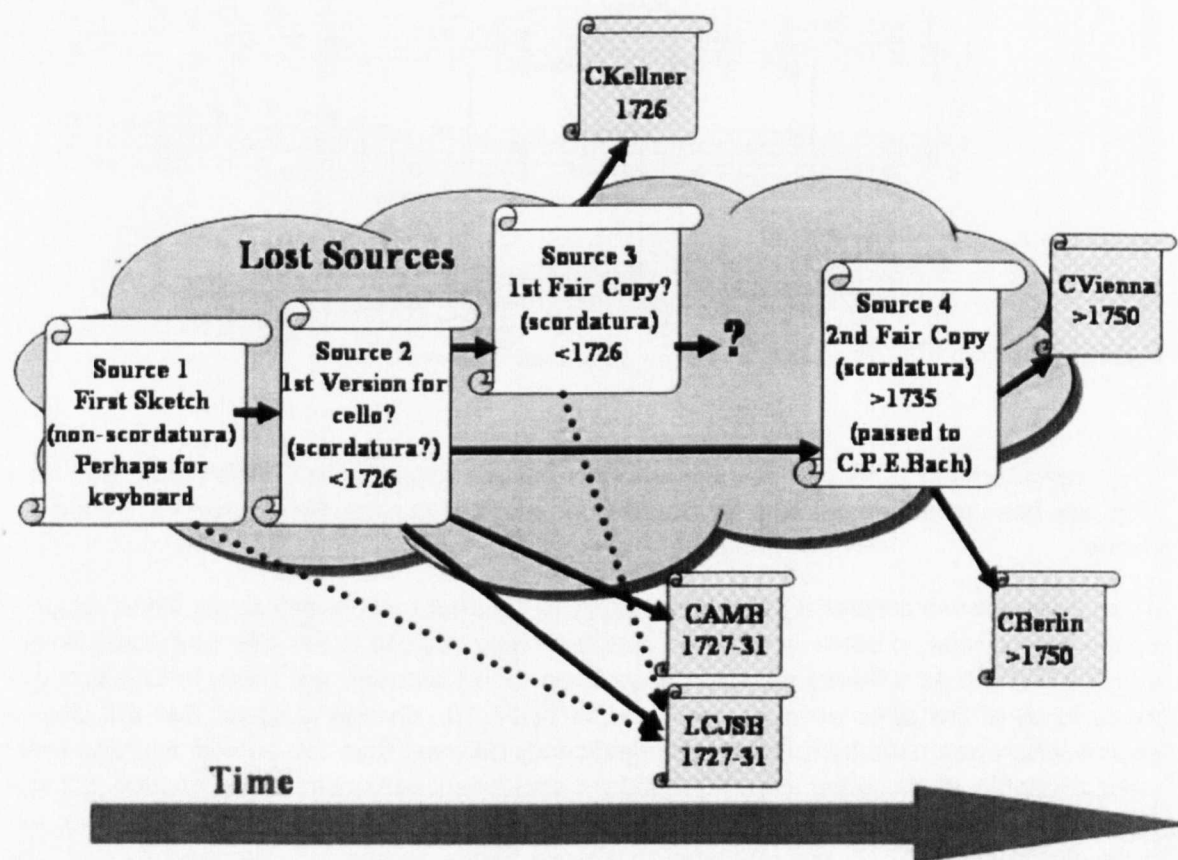
Contrary to the conclusions for the notes and the slurs, it may be rather surprising to see in Figure 7-4 that the correlation of the ornaments between most of the pairs of sources is highest for the first part of the Prelude, the Allemande and the Courante, which are all rela-

tively slow movements. The correlations of the ornaments in the Fugue, Gavotte I and the Gigue are noticeably lower, except for the correlation between CBerlin and CVienna, which is high for all movements, and the correlation between CAMB and LCJSB in the Fugue, which peaks at 100% because both sources have the same single trill (which is not statistically significant). It seems that Bach or his copyists felt more freedom in introducing or modifying ornaments in the faster movements.

7.3 Relationships between the sources

In this section, the evidence that has been gathered throughout this dissertation concerning the origins of the sources will be assembled, leading to conclusions about the relationships between the surviving sources and the presumed lost original manuscripts, which are illustrated in Figure 7-5. The rationale for the relationships shown here will be explained in the next paragraphs, but the figure is provided first so that the reader can refer to the figure as the discussion progresses.

Figure 7-5 Proposed new theory for the relationships between the sources for BWV 1011



As will be explained below, it seems likely that there may have been as many as four original sources for BWV 1011, all of which have been lost. They are shown in Figure 7-5 in the white manuscripts across the middle of the figure, within the cloud. The surviving sources are shown in yellow cross-hatching outside the cloud. The chronological sequence goes from left to right, but time-periods are not shown to scale.

Eppstein has commented on several significant similarities between the Cello Suites and the English Suites BWV 806-811, the earliest of the suite cycles which Bach composed¹. Both cycles have the same basic movement structure, but BWV 1011 is the most similar of the Cello Suites to the English Suites in form and style. Unlike the other Cello Suites, the Allemande of BWV 1011 begins (as in most of the English Suites) with a thematic imitation, the Courante is in the French style, like most of the English Suites, and the Gavottes are close in form and style to those in the 3rd and 6th English Suites. There is also a certain similarity between the opening of the Courante of the 2nd English Suite BWV 807 in A minor and the opening of the Courante of BWV 1011, illustrated in the next extracts:

3. Courante



CAMB Courante

From consideration of all of these similarities, Eppstein suggests that BWV 1011 may have originally been sketched out as a keyboard work, and this is noted for Source 1 in Figure 7-5 above.

It has been seen in chapter 4 that Kellner generally did not make many errors when copying, so the low correlation between CKellner and the other sources which was discussed in section 7.1 and the 44 differences which have been found between the notes in CKellner and those in all of the other sources, indicated in Table 10, strongly suggest that the original source which was used by Kellner was significantly different from the original sources which were available to the other copyists. It has also been demonstrated in section 3.2 that CKellner must have been derived from an original source in scordatura. As CKellner was produced in about 1726, this indicates that there was a source in scordatura by that time which was given to Kellner to copy, and this source was probably relatively free of errors. This original source is indicated as Source 3 in Figure 7-5 above.

It has also been demonstrated in chapter 4 that AMB generally did not make many errors when copying, so the numerous harmonic and melodic errors in CAMB suggest that AMB was copying from an original source which itself contained many errors, some of which she failed to detect because she was not a stringed instrument player. Furthermore, in CAMB both the turn in bar 5 of the Prelude and the frequent confusion with the scordatura imply that AMB was copying from an original source which was either not in scordatura at all (so

¹ Eppstein, Hans. 1999. pp.878-9.

she was making the transposition herself and made errors in the process) or in scordatura but with many scordatura transposition errors which she did not detect. The latter alternative seems to be the more likely as it is improbable that Bach would have given AMB the onerous task of making the complex scordatura transposition herself.

In any case, AMB was certainly not working from a fair copy with an accurate scordatura transposition. Bearing in mind that CAMB was produced in the 1727-1731 timeframe, and that a little earlier Kellner was copying from a fairly error-free source already in scordatura, as noted above, the intriguing question is: why was Kellner's good quality source not provided to AMB to copy?

The most likely scenario seems to be that the source which was provided to Kellner for copying was somehow lost, or in any case not returned to Bach. Thus, AMB was given the only available source in the Bach household to copy from, and unfortunately this was an early manuscript containing many errors, including scordatura errors. She did her best to copy it accurately, but it was complicated and she overlooked many of the errors.

The above considerations justify the proposals that Sources 2 and 3 shown in Figure 7-5 must have existed, and had the relationship shown in the figure. Source 3 was the good quality source used by Kellner which was subsequently somehow lost, leaving AMB to have to work from Source 2. This is supported by the chevrons and trills in the Sarabande of the 2nd Cello Suite in Kellner's copy compared to AMB's copy, discussed in section 6.5.1, which illustrate an evolution in Bach's ornamentation between Source 2 and Source 3 and suggest that Kellner's copy represents an intermediate state between AMB's copy and the Berlin and Vienna copies. The use of the title 'Suite' in the copies by both AMB and Kellner suggests that this spelling was also present in both Sources 2 and 3. From the evidence in CKellner, Source 3 appears to have been written in the same form of scordatura as appears in CAMB, CBerlin and CVienna, and this would make no sense for a viol, so it was certainly intended to be played on a 4-string cello. However, as noted in section 4.4, Kellner may have transposed it back out of scordatura so that it could be played on a bass viol.

Tomita has also suggested that AMB may have been copying from 'a less neatly-written score containing many revisions'¹, but he seems to have overlooked the importance of the scordatura errors as a clue to the relationship between the original sources available to Kellner and AMB.

Some time during the period 1727-1731, it seems that Bach was called upon to write a suite for lute. This may well have been connected with a forthcoming visit from an eminent lutenist, although there does not seem to be any certain evidence for this. In any case, Bach was apparently under pressure to make the transcription rather quickly, as shown by the messy state of the LCJSB manuscript. He may have simplified his task as much as possible by making the transposition at the lautenclavicymbel, which was easy for him to play, and chose the key of G minor with the upper stave in tenor clef because of the ease of transposition from C minor in bass clef. He was probably not concerned by the low G's in the transposition, because he had a 14-course lute in mind, but he was aware of the problem of stopping low chromatic notes and therefore occasionally put them up by an octave. However, he

¹ Tomita, Yo. 2007.

did not make this latter change systematically, and neither did he do so in other works for lute.

Of all the Cello Suites which might have provided the basis for a lute suite, Bach may have chosen BWV 1011 because he already had an early keyboard version of it (Source 1), including some of the additional voice-leading and more complete texture which was useful for producing LCJSB. The possible link from Source 1 to LCJSB is represented by a dotted arrow in Figure 7-5. The long slurs in LCJSB, sometimes occurring in places where the sources for cello have no slur, may also have been derived from Source 1. However, they are not typical for a keyboard instrument of this period (for instance, in Bach's keyboard Partitas published in the first *Clavier Übung* in 1731 slurs are extremely scarce), so they may simply represent new ideas for articulation or phrasing which occurred to Bach while he was producing LCJSB.

Bach probably also referred to Source 2 when producing LCJSB, because Source 2 was more mature than Source 1. This latter suggestion is supported by the relatively high correlation between CAMB and LCJSB (higher than between CKellner and LCJSB), the error which Bach made in the chord on the first beat of bar 13 of the Courante in LCJSB (discussed in section 3.2), and some corrections in LCJSB which suggest that Bach was transcribing from an original in scordatura, as noted by Eppstein¹.

Despite the differences which have been noted here, there are also some interesting similarities between CKellner and LCJSB which are a little hidden by the statistics in section 7.1. By reference to Table 5, a simple comparison of the notes, including the errors, shows that there are nine cases where both CKellner and LCJSB have the same notes and the other three sources have a difference. Leisinger has also noted these similarities between CKellner and LCJSB². The quantity of cases where the notes of other pairs of copies are unique is never greater than two, also illustrated in Table 5. This suggests that Bach, although using a different source when producing LCJSB from that which was available to Kellner, nevertheless included in LCJSB certain improvements which had been made in Source 3, as far as he could remember them. This relationship is represented in Figure 7-5 by the dotted arrow from Source 3 to LCJSB.

The errors in CBerlin and CVienna, whether or not they were associated with scordatura, are very few and can be accredited to normal human error, so it seems certain that these manuscripts were derived from one or more sources which were in scordatura and fairly error-free. Furthermore, the very high correlations discussed in section 7.2 between these two manuscripts suggest that they were copied from the same source, or from two sources which themselves had a common origin.

As the Cello Suites seem to have been intended as a unified set, the conclusions mentioned above concerning BWV 1011 can be extended to the whole set.

Leisinger provides evidence that the anonymous copies of the Cello Suites in the Berlin and Vienna may have been derived from an original source owned by C.P.E. Bach while he was

¹ Eppstein, Hans. 1988. p.X.

² Leisinger, Ulrich. 2000. p.15.

in Hamburg, and that this original source may have been a late autograph fair copy produced in the late 1730's, containing a number of corrections and improvements to the notes, articulation and ornaments¹. This evidence was discussed in more detail in section 2.2 of this thesis, and is based on the observations that C.P.E.Bach's estate mentions 6 *geschriebene Suiten fürs Violoncell ohne Bass*, and that the handwriting of the scribes of both manuscripts are in the style commonly associated with Hamburg, where C.P.E.Bach had lived from 1768 until his death in 1788. Supporting evidence that these manuscripts may have had a common source, which may have been a revised fair copy produced by Bach in the late 1730's, is provided by the similarity between the appoggiaturas in Gavotte I of BWV 1011 in these copies and the appoggiaturas in the Gavotte en Rondeau in LVJSB, as discussed in section 6.6.

In addition to Sources 1-3 already mentioned, it therefore seems likely that in the late 1730s Bach decided that it was time to produce an improved manuscript of the Cello Suites, Source 4 in Figure 7-5, incorporating at the same time his latest thinking on ornaments and articulation. The previous fair copy of the Cello Suites (Source 3) had been lost, AMB's copy had been given to Schwanberg, and Source 2 contained many errors. The relatively free rhythmical and harmonic structure of the slower movements probably provided scope for a stream of new ideas when Bach re-visited them, accounting for the lower correlations of the notes in these movements compared to the faster movements. Source 4 was mainly derived from the same original as AMB's copy (i.e. from Source 2), with which it would have had a high level of commonality. Source 4 was probably left to C.P.E.Bach when Bach died, and then used as the basis for the manuscripts containing CBerlin and CVienna in the second half of the 18th century. Williams confirms that in general 'Bach's interest in amending or completing was still active over a range of music' right up to his last year of life².

The more numerous ornaments in CBerlin and CVienna, which are very similar in the two manuscripts, coupled with Bach's known increasing concern in his middle and later years to indicate clearly how his works should be played (see for instance Hulshoff and Quantz³) also support the theory of a late revision to the Cello Suites. Bach's concern on this point may have led him to write out his ornamentation and rhythmic detail as clearly as possible in Source 4, perhaps to restrain the amount of ornamentation which some contemporary musicians tended to add during their performances. The rationalisation of the trill symbols (replacement of the chevrons with 'tr' symbols) in the Sarabande of the 2nd Cello Suite in the Berlin and Vienna copies compared to the Kellner copy is an example of this. Bach's attempts to clarify his ornamentation led to the well-known controversy which began in May 1737 with Johann Scheibe's famous complaint about his former teacher:

For he demands that singers and instrumentalists should be able to do with their throats and instruments whatever he can play on the clavier. But this is impossible. Every ornament, every little grace, and everything that one thinks of as belonging to the method of playing, he expresses completely in notes: and this not only takes

¹ Leisinger, Ulrich. 2000. p.5.

² Williams, Peter. 2007. p.265.

³ Hulshoff, Gerrit. 1944. p.81, and Quantz, Joachim. 1752. p.99, para 19 of chapter 8.

away from his pieces the beauty of harmony but completely covers the melody throughout.¹

Whatever one may think of Scheibe's criticism, it demonstrates that at least some contemporary musicians felt that Bach was going too far by the late 1730's in specifying so precisely how his works should be ornamented.

It is interesting to note in this context that none of the surviving manuscripts of Bach's Violin Solos suggest that Bach made a further revision of these works after the autograph fair copy from 1720. It seems that Bach was quite satisfied with the 1720 autograph copy, did not lose it as he seems to have done with the first fair copy of the Cello Suites, and had no reason to revise it in his later years.

There may also have been other sources in the chain between Bach's original manuscript(s) and the surviving sources, in addition to those shown in Figure 7-5, but no very strong evidence has been found here to suggest their existence.

In summary, the analysis of variants shows that there are two branches from which the surviving sources were derived. One branch has been transmitted by Kellner's copy, and is based on Source 3, while the other branch is based on Source 2 and has been transmitted by AMB's copy and later by the two anonymous copies via Source 4. To some extent LCJSB provides a link between the branches as it is based on Sources 1 and 2, but contains elements from Source 3. Each branch has its own improvements compared to the other branch. Most of the improvements introduced in the branch represented by Kellner's copy have apparently been lost in the second branch, except for a few which are captured in LCJSB.

7.4 Earlier theories

Following from the new theory developed in the previous section for the relationships between the sources, this section compares the new theory to earlier theories which have been presented in the more important recent literature on this subject, thus emphasising the significance of the different conclusions which have been derived here.

After the discovery of the manuscript containing CVienna in the late 1970's, the first authoritative theory for the likely relationships between the sources was provided by Eppstein², while the most significant contributions since Eppstein have been provided in the critical commentaries of the editions by Schwemer and Woodfull-Harris, Leisinger and Beisswenger.

¹ My translation from David, Hans and Mendel, Arthur. 1998. p.338. Original text: *Weil er nach seinen Fingern urtheilet, so sind seine Stücke überaus schwer zu spielen; denn er verlangt, die Sänger und Instrumentalisten sollen durch ihre Kehle und Instrumente ebendas machen, was er auf dem Clavier spielen kann. Dieses aber ist unmöglich. Alle Manieren, alle kleinen Auszierungen, and alles, was man unter der Methode zu spielen versteht, druckt er mit eigentlichen Noten aus.*

² Eppstein, Hans. 1990. pp.18-26.

All of these studies follow the same basic theory about the sources for Bach's Cello Suites, illustrated in Figure 7-6. They assume that AMB's copy of the Cello Suites was derived from a fair autograph copy, making the following statements on this subject:

Eppstein: 'Source A [AMB's copy of the Cello Suites] provides a relatively reliable copy of the Bach's lost fair copy'.¹

Beisswenger: 'Since Anna Magdalena's copy of the violin soli was based on the autograph of 1720, it can be assumed that her copy of the cello suites was also based on an autograph.....Since, as explained above, it can be assumed that AMB's copy is a reliable transmission of the musical text, we have based our edition exclusively on [it].'²

Leisinger: 'It is highly likely that Anna Magdalena's copy was based on an autograph fair copy'.³

Schwemer and Woodfull-Harris: 'There can be no question that A [the copy by AMB] is the principal source for the cello suites...In all likelihood, Anna Magdalena Bach prepared her manuscript from a no longer extant fair copy written out by Bach himself.'⁴

The justification for the above statements seems to have been the widely held assumption that AMB, as an important member of the Bach household, must have had access to the best available copy. This theory is disproved by the evidence revealed in this thesis that AMB was copying from a source which contained many errors and was either not in scordatura or was in scordatura but with many transposition errors which she failed to detect. This original source cannot have been a fair copy.

Similarly, the established theory is that Kellner's copy was derived from an earlier copy in a less mature state, possibly a composing copy or even an intermediate copy made by someone else, as illustrated in the following quotations:

Eppstein: 'Source B [Kellner's copy] is derived from another manuscript from Bach's circle, perhaps from Bach's composing copy'.⁵

Beisswenger: 'Kellner's copy is the earliest, but also the most unreliable transmission carrier of the cello suites.....We can only speculate with regard to the nature of that source [i.e. the source which Kellner was copying], but evidence points to the assumption that we are dealing with the handwritten ordinary copy of a cello player.'⁶

¹ My translation from Eppstein, Hans. 1990. p.25. Original text: '*Quelle A stellt eine verhältnismässig getreue Kopie der verlorenen Reinschrift Bachs*'.

² Beisswenger, Kirsten. 2000. p.77.

³ Leisinger, Ulrich. 2000. p.15.

⁴ Schwemer, Bettina and Woodfull-Harris, Douglas. 2000. p.6.

⁵ My translation from Eppstein, Hans. 1990. p.25. Original text: '*Quelle B geht auf eine andere Hs. Bachs Umkries, vielleicht auch auf Bachs Konzept zurück*'.

⁶ Beisswenger, Kirsten. 2000. p.77.

Schwemer and Woodfull-Harris: 'He [Kellner] may have prepared his copy from a sort of working copy or original manuscript in Bach's hand.....Kellner's copy has a large number of obvious scribal errors such as wrong notes, incorrect rhythms, and the occasional omission or duplication of bars'.¹

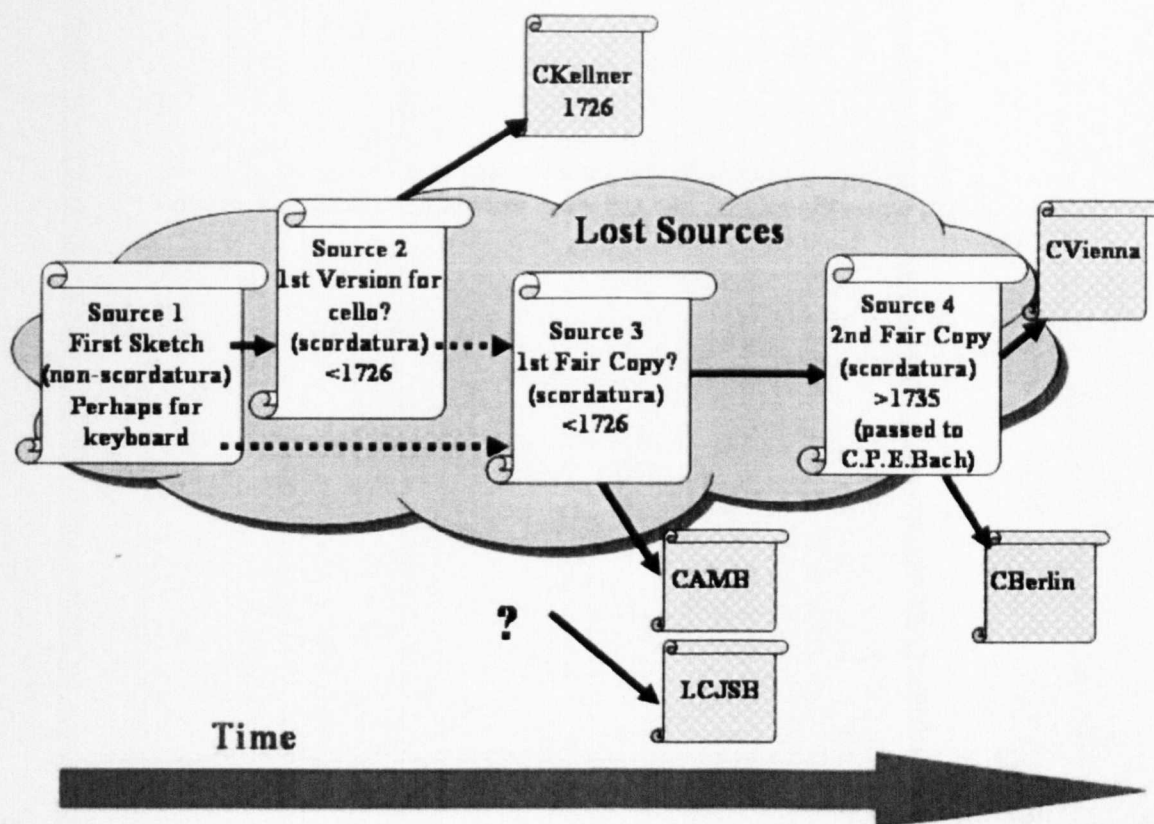
Compounding the assumption that the manuscript by AMB is an authoritative derivation from an autograph copy, it can be seen from the above remarks that all of these scholars make a further assumption that most of the differences in Kellner's copy compared to AMB's copy must necessarily be errors. This assumption is unacceptable because many of the differences in Kellner's copy are musically logical from a melodic and harmonic point of view; they are different but nonetheless valid readings, not necessarily errors. There are actually very few certain errors in Kellner's copy, so it seems simply to be representing another branch of the stemma.

The theories illustrated in Figure 7-6 thus demonstrate the following important differences compared with Figure 7-5:

1. CKellner is presumed to be derived from an early composing copy of the Cello Suites, Source 2, or from an intermediate copy with markings and modifications by a contemporary cellist. As Kellner made a reverse transcription to normal tuning, this early copy must have been in scordatura.
2. CAMB is presumed to be derived from the first fair copy, Source 3.
3. The first fair copy is recognised to be substantially different from the source available to Kellner, and is assumed to have been derived partially from another source (nominally shown as Source 1 in Figure 7-6).
4. All five scholars postulate the existence of a late revised version, Source 4, but they assume that it was derived from Source 3.
5. There is no clear proposal for the original source of LCJSB, and no explanation for the similarities between LCJSB and CKellner.

¹ Schwemer, Bettina and Woodfull-Harris, Douglas. 2000. p.7

Figure 7-6 Earlier theories about the possible relationships between the sources for BWV 1011



In Figure 7-6, the possible keyboard origin of Source 1 and the suggestion that Source 4 was passed to C.P.E. Bach have been maintained from Figure 7-5 because these theories (proposed respectively by Eppstein¹ and Leisinger²) are compatible with the remainder of the figure.

An interesting comment is also made by Schwemer and Woodfull-Harris concerning the two anonymous copies³:

Because of their temporal distance from [the manuscripts of AMB and Kellner], not to mention our ignorance as to the scribes of [CBerlin and CVienna], these.. manuscripts must be considered inferior to the others as sources of Bach's original text.

¹ Eppstein, Hans. 1999

² Leisinger, Ulrich. 2000

³ Schwemer, Bettina and Woodfull-Harris, Douglas. 2000. p.7

Beisswenger also appears to subscribe to this view, as her edition is based on AMB's copy, with only a few corrections from the other sources when AMB's copy was clearly erroneous. However, Leisinger has taken a diametrically opposite view, basing his edition on the two anonymous manuscripts which he considers to be copies of a late revised autograph.

In summary, at least two unsubstantiated assumptions are commonly made by scholars about the relative reliability and importance of the surviving manuscript copies by AMB and Kellner of Bach's Cello Suites, and they are widespread in the established literature. These assumptions are called into question by the conclusions of this thesis, which show that they are quite misleading when the differences between the manuscripts are analysed in detail.

8 Conclusions

8.1 Introduction

Chapter 7 has provided some answers to the first two fundamental questions of this research which were listed in section 1.2. In this chapter, the remaining two questions will be addressed, leading to conclusions which may be useful for the production of a new edition of Bach's Cello Suites:

3. How can the information provided by the surviving sources (and any related material) best be used to interpret the musical text?
4. How should this collection of differing sources for the same work be used to produce a reliable, historically- and musically-informed edition?

8.2 Interpretation of the musical text

A modern performance of Bach's music can never be truly authentic in the sense of recreating an actual historical performance, because there are too many unknown factors about Bach's performing environment. There remain unresolved questions about such matters as the set-up of the instruments in Bach's time and contemporary tastes in tempi, dynamics, articulation and ornaments. Schulenberg comments 'No reputable performer or scholar today claims that using an old instrument or a supposed copy thereof, or even playing it according to the latest ideas about historical performing practice, assures authenticity'¹.

However, it is possible to derive much information about performance conventions and expectations from the available material, and this can at least help to provide an indication of parameters which should guide or limit the range of interpretation. This thesis has demonstrated that a close examination of the sources is essential for an informed performance of BWV 1011, and indeed of all Bach's Cello Suites. The sources contain much information about Bach's notational conventions and expectations for performance, and the differences between the sources are so significant that it is necessary to analyse them very carefully to determine which source(s) to follow in each case of a difference. Available editions cannot always be relied upon to indicate the most desirable interpretations of the sources, as will be discussed more fully in section 8.3.

This section summarises and consolidates the information about conventions and performance practice which has been gathered throughout the dissertation from the sources of BWV 1011, in response to question 3 provided above. In some cases the information is consistent with findings from previous research, but in other cases new information or different interpretations have been found which may help to refine a general understanding of performance practice in Bach's circle.

¹ Schulenberg, David. 2006. p.9.

Note pitches, note lengths and execution of chords

For a correct interpretation of the notes in source manuscripts of the Baroque period it is fundamental to understand the conventions used for indicating accidentals. In the period when Bach wrote LCJSB and the original sources from which CAMB, CKellner, CBerlin and CVienna were derived (approximately 1715–1740), it has been demonstrated that Bach's usual practice was to insert explicit accidentals before all occurrences of notes to be sharpened or flattened which were repeated in the same bar, unless they were pedal notes, or they were adjacent to a previous note having the same accidental, even when separated by a bar-line. Bach did this generally quite consistently, with only rare exceptions which were probably due to normal human error. Bach's copyists followed the same basic convention, but they were less consistent. Where exceptions occur, they seem to have been due to carelessness or confusion with other factors such as the use of Dorian key signatures or the use of scordatura.

When a previous accidental needed to be cancelled, Bach and his copyists generally used the natural sign as we use it today, but occasionally they also followed the older convention of cancelling a sharp by a flat symbol.

A fairly systematic change occurred in Bach's habits for indicating double sharps between the years 1720 and 1735–40, passing from use of an apparently unnecessary sharp symbol for notes which are already sharpened in the key signature, towards use of the x symbol commonly used today.

There do not seem to have been many established conventions for indicating the use of scordatura in the period when CAMB, CBerlin and CVienna were produced (mid 1720s to end of the 18th century). All three sources indicate *Discordable* at the start of the Suite, and the tuning of the strings, but thereafter the key signatures are different, and only the key signature in CBerlin (except for the Allemande) seems to be logical. Also, the term *Discordable* suggests that use of scordatura was intended to be optional. The scordatura notation which has been used is sometimes ambiguous, and difficult for the performer to decipher in certain bars in all three sources. These difficulties have caused the copyists to make numerous scordatura-related errors, especially in CAMB.

The convention for scordatura does, however, provide implicit instructions for which string should be used to play certain notes, giving an interesting insight into some aspects of contemporary performance practice. There seems to have been a deliberate indication in certain places for choice of a lower string to obtain a softer effect, and in other places an equally deliberate indication for choice of open strings (producing a brighter effect, but necessarily without vibrato) or lower positions of the left hand. Often a change of string is implied rather than a move to a higher position on the same string.

Although the examples of choice of strings in these manuscripts provide an interesting and useful guide, they are not sufficiently numerous or consistent to be considered as rules. They demonstrate that the performing cellist should consider very carefully the fingering of each note according to the context of the passage in order to obtain the intended effect, and should not be afraid to use open strings and lower fingering positions frequently where a bright effect would be appropriate.

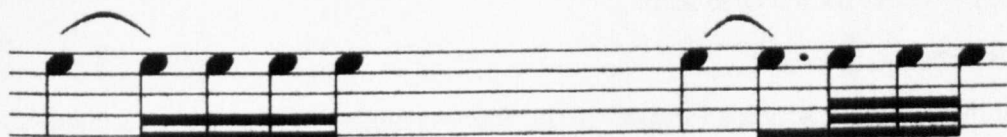
There is also considerable confusion in all of the sources for BWV 1011 arising from the use (or not) of a Dorian key signature (which would have one flat fewer in the key signature than

we are accustomed to seeing today). All of the sources have the full number of flats in the key signature for C minor (lute G minor), except the Allemande in CBerlin which has a Dorian key signature, but they occasionally miss natural accidentals in front of notes of pitch A or a (lute e or e') where naturals would seem to be appropriate, indicating confusion in the minds of the copyists about how many flats there were in the key signature. This is especially frequent in CKellner.

As the confusion with Dorian key signatures often occurs in the same place in more than one source, the confusion was probably also present in the original sources from which the copies were derived, i.e. in the manuscripts of Bach himself. This theory is supported by similar confusion which has been found in the autograph copy of Bach's Violin Solos. Where the sources for BWV 1011 differ in this respect, LCJSB most frequently seems to offer the best alternative, while CAMB and CKellner do so the least frequently. It is important to be well aware of this issue in order to derive a modern edition with correctly placed accidentals. From melodic and harmonic considerations, it seems that the version of bar 4 in the Allemande in Eppstein's edition may not be preferable.

It was probably not expected in Bach's time that there would be mathematical correctness when combining the upbeat with the last bar of each section of the movement. A problem for Bach and his copyists was that today's convention of notating a double dot was not widespread at the time when the Cello Suites were composed, so there was no simple notation for indicating a double dotted crotchet at the end of each section of the Allemande to match a semiquaver upbeat, or a double dotted minim at the end of each section of the Courante to match a quaver upbeat. They could have added a tied note at the end, or a rest as in the LTAB version of the first section of the Courante, but they did not do so because it probably seemed to be unnecessarily fussy.

In LCJSB, sharper dotting has been indicated in certain bars of the first part of the Prelude and the Allemande compared to the equivalent bars in all of the sources for cello. This is most striking in the Allemande, where nine bars in the cello sources which contain a crotchet tied to a semiquaver, followed by three more semiquavers, have been modified in LCJSB to a crotchet tied to a dotted quaver followed by three demisemiquavers, following the model illustrated below:



As in Cello Manuscripts

Sharper dotting in BWV 995

Here also, Bach apparently did not feel the need for the notes to add up exactly to a beat in the version in BWV 995.

Similar sharper dotting was introduced by Bach in the autograph copy of the French Overture BWV 831 compared to the earlier copy by AMB. It seems that Bach felt the need to indicate sharper dotting for certain figures in slow movements of the French Overture style during the period of his life when LCJSB and BWV 831 were produced (late 1720s to early

1730s). LVJSB was produced later (in the late 1730s), and only exhibits one case of sharper dotting compared to the version for violin, which occurs in the *Loure*. However, none of the movements in LVJSB are really in the French Overture style. There does not seem to be any evidence of Bach sharpening his dotting in works composed after the mid-1730s.

Grützbach and other scholars have proposed that every instance of a dotted note in slow movements of Bach's Cello Suites should be more sharply dotted than indicated by the written musical text¹, but this does not seem to be justified. There is no evidence in the sources discussed here of an expectation for sharper dotting in any figures other than those consisting of a crotchet tied to a semiquaver, followed by three more semiquavers. For instance, figures in the sources for cello consisting of a dotted crotchet followed by a quaver or of a dotted quaver followed by a semiquaver have not been more sharply dotted in LCJSB. This is also the case in the manuscript sources of the French Overture BWV 831.

It has been shown in chapter 7 that CBerlin and CVienna were probably derived from a revised autograph produced in the late 1730s, so the absence of sharper dotting in these manuscripts, compared to CAMB, suggests that by that time Bach no longer favoured sharper dotting in movements in the French Overture style.

When he sharpened the dotting, Bach was apparently not worried whether the lengths of the notes added up precisely to a beat. The main beat was probably expected to remain constant, but some flexibility was left to the performer to decide on the speed of the internal *ti-rate* figures within the beat. As with his upbeats, Bach could have indicated a sharper rhythm if he had wished to do so by the use of tied notes.

Several chords in CKellner cannot be played as indicated on the cello, because they require two or more notes to be played simultaneously on the same string. They can only be played as arpeggios (i.e. with each note played separately), or as chords with one or more notes omitted. When considered with the title page indication of this manuscript 'Sechs Suonaten pour le Viola de Basso', there is a possibility that Kellner's manuscript of the complete set of Suites was actually intended to be played on a bass viol, on which each note of these chords could be played on a separate string. However, evidence from Bach's Violin Solos suggests that arpeggiation of chords may in any case have been common practice for the violin, and therefore probably for the cello also.

Articulation

In all of the available sources for BWV 1011, the articulation marks are predominantly slurs. The only other articulation marks are a few dots in the *Courante* in CBerlin, CVienna and LCJSB, and in *Gavotte II* in CBerlin and CVienna. The scarcity of articulation marks apart from slurs continues throughout the sources for the Cello Suites, and is even more noticeable in the sources of the Violin Solos and the autograph score of the Brandenburg Concertos.

It can be concluded from this that staccato playing was not common in Bach's day on the violin or cello, perhaps because of the difficulty of playing staccato with the Baroque bow.

¹ Grützbach, Erwin. 1993. pp.36-37.

Where there are dots which concern two crotchets within a minim beat, they may indicate that the notes should be played with equal length, i.e. not to be played as *notes inégales*. Separate, slightly detached bowing is likely to have been the norm, and some of the slurs seem to have been arranged to allow a down-bow to be taken on the strong beats.

Some particular characteristics of the slurs found in CAMB, CKellner, CBerlin and CVienna are:

CAMB: The slurs are occasionally shifted to the right from their logical position. Sometimes there seems to have been a deliberate attempt to add variety in the articulation (for instance in the fugal section of the Prelude and in the Sarabande), and sometimes there has been special attention to cello technique to facilitate the bowing.

CKellner: The slurs are also occasionally shifted to the right. There is considerable variety in the slurring, which may have been in the original source from which Kellner was copying, or an attempt by Kellner to introduce more variety in the slurs during the copying process.

CBerlin: There is a tendency to draw longer slurs than in CAMB or CKellner, and this copy contains an especially large quantity of 3-note slurs. Some of the slurs have been drawn as complete circles in Gavotte I, which do not seem to have any particular musical significance compared to normal slurs, but are probably just a characteristic of the copyist.

CVienna: The quantity of slurs concerning more than 3 notes is greater than in any of the other sources for cello. This is partly because the copyist has been very careful to draw the slurs over all of the notes to be slurred together, but he or she has also lengthened several slurs in the Allemande, Courante and Gavotte I during the copying process, which suggests a general preference for longer slurs. There are some signs that he or she may not have been familiar with the technique of bowed string instruments, because some of the changes to the slurring which have made in the Allemande and Gavotte I introduce awkward bowing patterns for the cellist.

From an assessment of the slurs in VAMB and VJSB, it is suggested here that the different slurs in VAMB are often quite deliberate, and not the result of sloppy copying. The slurs in VJSB are more consistent, but this consistency may have been deliberately avoided in VAMB. It would be wrong to assume that the slurs in VAMB are incorrect or careless, just because they are not the same as those in VJSB and are not always consistent in similar passages. This does not mean that AMB necessarily made changes on her own initiative, although this may have happened: it is also possible that the different slurs were already in the original source which she was copying, or that Bach himself or someone else suggested to her that changes in articulation should be introduced, or even that someone else wrote in these slurs (although there is no apparent evidence for this in the manuscript).

Williams has suggested that AMB often only copied the notes in her manuscripts, and Bach or someone else added the headings, dynamics, etc.¹ A possible source for the different

¹ Williams, Peter. 2007. pp.172-173.

slurs may have been the violinist Georg Heinrich Ludwig Schwanberg (1696-1774), whose handwriting is present in the titles of some of the works and movements in VAMB. As CAMB was produced at about the same time and under the same conditions as VAMB, the same influence may have been present, and the slurs in CAMB can be expected to have had the same characteristics as VAMB vis-à-vis the original source from which they were copied.

VKellner has many fewer slurs than VJSB and VAMB, and the slurs are sometimes different from those in all of the other manuscripts for BWV 1006. Some of the differences may represent a slurring which existed in the original source from which VKellner was derived, but which was not present in the sources from which the other surviving copies were derived. As with AMB's copies, this implies that the slurs in CKellner can be expected to have the same characteristics as those in the original source from which it was copied.

LVJSB and LCJSB have almost exactly the same proportional quantities of each length of slur per bar, suggesting that Bach's considerations when writing the slurs in these transcriptions were similar, even though LVJSB is thought to have been produced about ten years after LCJSB. It seems that Bach recognized the difficulty of executing slurs on the lute, and thus minimized the quantity of slurs which he inserted in both transcriptions. The same consideration may have led him to indicate that the first statements of the main motifs in each movement in the lute transcriptions should be played detached, so that they could be more clearly heard, and only to introduce slurring later in order to add variety. This is especially noticeable in the Fugue, Allemande and Gavotte I in LCJSB and in the Gavotte en Rondeau in LVJSB.

The slurs in LCJSB demonstrate a number of inconsistencies within the manuscript in similar passages, but nevertheless there are some important trends, such as the frequent slurs over four descending quavers in Gavotte I. Especially intriguing in LCJSB is the comparative scarcity of 2-note slurs, which would normally be the easiest type of slur to execute on the lute, and the comparatively large proportion of fairly long slurs over intervals greater than a second which are difficult to execute on the lute, including one slur in the first section of the Prelude which is over 59 notes. Sometimes these long slurs occur in passages where there are no equivalent slurs in the sources for cello, and they appear to be more suited to a different kind of instrument where longer slurs would be easier to execute.

Ornaments

BWV 1011 is the most heavily ornamented of all of Bach's Cello Suites in all of the surviving sources. However, a noticeable feature of the ornaments in all of the sources for cello is that they are of a very limited range of simple ornament types: the trill, the grace-note, the turn and possibly the vibrato ornament. LCJSB has a similar limitation, but does include a very small quantity of mordents. A similarly limited range of simple ornaments can be seen in most works for strings by Bach from the same period, such as the Brandenburg Concertos, the Sonatas and Partitas for Unaccompanied Violin and the Sonatas for Viola da Gamba.

Most of Bach's keyboard works from the same period have a much wider range of ornaments (as for instance illustrated in the 'Explication' given by J.S.Bach in the 'Klavierbüchlein für Wilhelm Friedemann Bach', and in Bach's keyboard Partitas). Possible explanations for this wider range of ornaments in Bach's keyboard music could be:

1. Contemporary keyboard instruments could not sustain the notes at a constant intensity in the same way as bowed string instruments, so Bach may have felt a need to decorate his keyboard works with more complex ornaments in order to sustain the sound as long as possible, profiting from the relative ease with which complex ornaments can be executed on a keyboard instrument.
2. Most performers of bowed string instruments were trained as orchestral players, and in orchestras a more limited range of simple ornaments was employed because of the difficulty of synchronising more complex ornaments amongst multiple instruments, so it was not part of the performers' tradition and training to interpret complex ornaments. Keyboard performers on the other hand were probably more used to the complex ornaments which Bach has written in his keyboard works.

It seems likely that both of these factors played a role in Bach's decision to limit the range of ornament types in his music for violin and cello. In addition, more precise ornamentation might be expected in the works which Bach published in his lifetime (mostly keyboard works) because they were intended for a wide public perhaps not familiar with the conventions for performance practice in Bach's circle, while works which only existed as manuscripts such as the Cello Suites were probably mainly intended for use by performers much closer to Bach's circle.

The large quantity of ornaments in LCJSB compared to the sources for cello of BWV 1011 may partly be due to the need to sustain the notes longer on the lute, in a similar way to the keyboard discussed above, and this theory is supported by the still more numerous ornaments which were added by the (unknown) contemporary lutenist who produced the Tablature version of LCJSB. Similarly, LVJSB has more ornaments than VJSB, VAMB and VKellner.

A comparison between VAMB and VJSB has suggested that AMB was a conscientious copier of ornaments, and therefore that the ornaments in CAMB may well be a reliable guide to the ornaments which were in the original source of BWV 1011 from which it was copied. However, the ornaments in VKellner and LVJSB are significantly different from those in the other sources for BWV 1006, suggesting either that they were copied from different sources which had different ornaments, or that Kellner or Bach changed the ornaments while producing their respective manuscripts. Similar conclusions can be assumed for CKellner and LCJSB.

The manuscripts provide no particular evidence for the existence of rules or conventions about starting a trill on the main note or the upper note in Bach's music, except where an indication has been provided in the music itself, for instance by a preceding grace-note. However, for most of the trills there is a written-out indication in all of the sources of the required ending by means of quavers, semiquavers or demisemiquavers which either rise or fall by an interval of a second from the main note of the trill. Where trill endings are indicated, the sources seem to be unanimous, so it can probably be assumed that this is how Bach indicated them in his original manuscript(s), and that he was careful to write out the endings of the trills to ensure that there would be no confusion about how they should be executed. There are several examples of bars leading into cadences in which some of the sources have trills and some do not, suggesting that it was common practice to play trills in such cases, and that the copyists sometimes did not consider it necessary to indicate them explicitly. For string players it is significant that the trills in bar 23 of the Courante suggest that in

Bach's time it may have been common practice to perform trills with the main note on the open string.

The greatest difference between the quantities of ornaments in the sources concerns the grace-notes, which are scarce in CAMB and CKellner but relatively frequent in the other three sources. The scarcity of grace-notes in CAMB and CKellner is also apparent in the other Cello Suites copied by the same scribes. Most of the grace-notes are written as quavers, with just a very small number written as semiquavers, but the sources are inconsistent and there does not seem to be any particular reason for the semiquaver grace-notes to be played shorter than those shown as quavers. Although so many grace-notes are written explicitly in C*Vienna* and C*Berlin*, it seems likely that the copyists concerned expected additional grace-notes to be played in *Gavotte I*, following the examples given in the first three bars. Evidence in the sources suggests that grace-notes before a dotted crotchet were intended to be played for the length of a quaver, starting on the beat, and not for a crotchet as is often supposed today (this is contrary to the indications of C.P.E.Bach, Quantz and Mozart, all of whom wrote their treatises in the 1750's, shortly after Bach's death).

Amongst all of the sources for BWV 1006 and BWV 1011 considered here, mordents only occur in the two lute manuscripts, LCJSB and LVJSB. In LCJSB there are just two mordents, and in LVJSB there is only one. Considering the large number of mordents in Bach's keyboard works such as the *Partitas*, and that mordents are comparatively easy to execute on a bowed string instrument, it is surprising that there should be none in the sources for cello of BWV 1011, and that there should be so few mordents in LCJSB and LVJSB.

Turns occur twice in LCJSB and once in CAMB (but not in the same location), and in each case the inclusion of a turn would have a considerable impact on the melodic line. Modern editions for lute or guitar seem to treat the turns in LCJSB either as simple grace notes or as slides, although a turn may actually have been intended by Bach. The turn in CAMB (which occurs in bar 5 of the *Prelude*) is interpreted in many editions as indicating a rest in one of the upper voices, but the symbol is incorrectly drawn to be a rest (it is a mirror image of the normal rest symbol), so a turn seems to have been intended. In *scordatura* this turn in CAMB is practically impossible to play (requiring a stretch which is too big for most hands), but it is quite easy to play on a normally tuned cello.

There is a wavy line over chromatically rising dotted crotchets in bars 55 and 56 of the *Gigue* in CAMB and C*Berlin*, which is sometimes thought to be an indication of a 'vibrato' ornament, although most modern editions represent it with two trills, as it appears in C*Vienna*. This wavy line ornament is the only one of its kind in the sources of Bach's Cello Suites, but similar cases occur in the autograph manuscripts of the *Violin Sonata BWV 1003* and the *Gamba Sonata BWV 1027*. From consideration of all of these examples it seems likely that these long wavy lines were intended to indicate trills, not vibrato ornaments.

In the *Allemande* and the *Gigue* the ornaments occur mostly well into the movement, suggesting that it may have been common practice with certain types of dance movement to state the main motifs of the movement initially as clearly as possible without ornaments, and then to decorate them more later in the movement.

8.3 Implications for editions

Most of the points mentioned in section 8.2 about conventions and performance practice are likely to be useful for the preparation of editions of any of Bach's works for violin or cello.

However, for editions of the Cello Suites the issues discussed in chapter 7 may have a still greater influence, because they are fundamental to the editorial choices which must be made when the sources differ. It has been demonstrated that the surviving sources appear to have been derived from as many as four different original sources, each representing a different stage in the evolution of Bach's perception of the Suites, so an editor faces a difficult decision about which of the sources should be regarded as the best basis for an edition in each case where the sources differ. A search for a unique perfect edition representing Bach's wishes can never truly succeed, as the surviving sources only represent snapshots of the Cello Suites in their different evolutionary stages.

In this situation, it is very important that the critical commentary of an edition should document each editorial decision which has been taken, with supporting rationale. Only then can the performer judge for himself or herself whether to follow the edition or to adapt it according to his or her own research or taste. In any case, an edition should be based on a full understanding of the relative importance and reliability of the available sources.

Eppstein has partially recognized the difficulty, or indeed impossibility, of producing a single perfect edition, and has provided two versions of the Cello Suites in his edition for the NBA, referred to here as NBA-cello1 and NBA-cello2. The notes in both of these versions are the same, and represent an attempt to reconcile the available sources. Unfortunately such an attempt is doomed to produce an unsatisfactory result, as shown by the conclusions of this dissertation. Several cases have been illustrated where Eppstein seems not to have made the best choice when the sources offered different readings of the same bar in BWV 1011. For instance the notes seem to be poorly chosen in bars 170 and 193 of the Prelude, bar 4 of the Allemande and bar 9 of Gavotte I. Eppstein has also indicated slurs which are different from those in all of the sources in several places, such as the Prelude bars 167-170 and throughout the Sarabande, although the slurs in at least some of the sources could be quite practical and musically effective for performance. As with most other editions, the critical commentary of Eppstein's edition unfortunately does not give a complete explanation of the choices made by the editor.

There are, therefore, certainly some weaknesses in the Eppstein's edition which could usefully be addressed, and this would help to improve the quality of the performing editions which are derived from it.

It has already been suggested in previous literature that the anonymous copies of the Cello Suites in the libraries of Berlin and Vienna certainly have a close relationship, and that they may have been derived from a common source, a late revision of the Cello Suites produced by Bach in the late 1730's. This suggestion is supported by evidence presented in this dissertation.

However, the evidence presented in chapter 7 about the relative importance of the sources has much greater consequences for editions than would be implied by the above paragraphs alone. The most significant overall conclusions are that Kellner's copy of Bach's Cello Suites transmits the contents of the first fair copy of Bach's Cello Suites, produced some time before 1726, and AMB's copy transmits the contents of an earlier version containing

numerous errors and lacking some of the improvements which Bach had introduced in the source which was available to Kellner.

If this is correct, then there are many other aspects of the Eppstein's edition which can be questioned in addition to the weaknesses mentioned above, with significant consequences for future editions of Bach's Cello Suites. For instance, there are numerous differences between the copies by AMB and by Kellner where both of the alternatives which they present appear to be musically correct (i.e. they are logical from a melodic and harmonic point of view), and in these cases Eppstein (followed by most editions) has nearly always opted for the version given by AMB. However, if Kellner's copy represents Bach's more mature version of the Suites, then it may be preferable to opt for Kellner's version in such cases. It has been found in section 7.2 that the notes given in CKellner are different from those in CAMB in 24% of the bars, even after ignoring all of the clear copying errors. Although Kellner's readings may not be preferred in every case, this suggests a very significant number of bars where the notes given in current editions (including Eppstein's) should be reviewed.

Thus, the results of this research suggest the rather surprising conclusion that AMB's copy may actually be the least important of the surviving sources as the basis for a performing edition. This is a very significant conclusion because almost all of the available performing editions treat this copy as the primary source, only using the other manuscript sources for reference when AMB's copy has obvious errors. This conclusion contrasts strongly with the views usually presented in the literature about the relative importance of the sources of these Suites, and it implies that most performers today are basing their performances on an unreliable source.

If Kellner's manuscript is indeed transmitting the contents of Bach's first fair copy of the Cello Suites, while the Berlin and Vienna manuscripts are transmitting the contents of a revised fair copy produced by Bach in the late 1730's, then it would seem to be highly desirable to have at least one edition available which is based primarily on Kellner's manuscript, and another based on the Berlin and Vienna manuscripts. AMB's manuscript and LCJSB could then be used to correct any obvious weaknesses in the other sources. Eppstein has gone some way in this direction by publishing two versions, but unfortunately the notes of both versions are identical.

There is already one performing edition available which is based primarily on the Berlin and Vienna manuscripts, namely the edition by Leisinger. Unlike Eppstein's second version for the NBA, Leisinger has taken all aspects of the Berlin and Vienna copies into account, including the notes, and has produced a very usable edition suitable for performance. Leisinger has also included a scholarly discussion of the sources, which covers many of the differences between them. Nevertheless Leisinger has not explained all of his editorial decisions, even in cases where he has departed from the text provided by the Berlin and Vienna copies.

However, no editions have been found during this research which take Kellner's manuscript as the primary source. Thus, the most urgent editorial work still to be done on Bach's Cello Suites seems to be the production of an edition based on Kellner's manuscript, reflecting Bach's first fair copy, and it is hoped that the research presented here will help to inspire the production of such an edition in due course.

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Dissertation Title:

***A critical investigation and re-assessment of
the composition history of
J.S.Bach's 5th Suite for
Unaccompanied Violoncello, BWV 1011***

***Thesis submitted in partial fulfilment of the requirements for the degree of
Doctor of Philosophy in Music***

By Andrew Hill, MA, MSc, LTCL, LRSM

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Table 1 Repeated accidentals in the sources for the Prelude of BWV 1011¹

Bar	Note Sounding Pitch	Re- peated note is adja- cent in the same bar	Note re- peated in same beat? (same crotchet for bars 1-27, same quaver from bar 27)	Re- peated note is adja- cent after a bar-line	Re- peated note is a pedal	Accidental repeated by copyist?				
						CAMB	CKell- ner	CBerlin	CVi- enna	LCJSB
10	a \sharp									Y
19	A \sharp							Y	Y	Y
20	a \sharp					Y	Y	Y	Y	Y
21	A \sharp					Y	Y	Y	Y	Y
22	a \sharp					Y	Y	Y	Y	Y
23	f \sharp		Y							Y
23	f \sharp					Y		Y	Y	Y
23	a \sharp		Y			Y	Y	Y	Y	Y
24	A \sharp		Y			Y		Y		Y
24	A \sharp					Y	Y	Y	Y	Y
25	a \sharp					Y		Y		Y
26	f \sharp					Y	Y	Y	Y	Y
42	a \sharp					Y		Y	Y	Y
61	a \sharp					Y	Y	Y	Y	Y
62	a \sharp					Y	Y	Y	Y	Y
87	b \sharp					Y	Y	Y	Y	Y
93	B \sharp					Y		Y	Y	Y
99	a \sharp				Y					Y
99	a \sharp				Y					
106	a \sharp									Y
107	f \sharp					Y	Y	Y	Y	Y
118	B \sharp							Y	Y	Y
121	e \sharp						Y			Y
124	E \sharp									Y
135	e \sharp					Y	Y	Y	Y	Y
146	b \sharp									Y
147	B \sharp									Y
189	B \sharp					Y		Y	Y	Y
192	a \sharp	Y								
193	f \sharp					Y	Y	Y	Y	Y
195	b \sharp			Y		Y		Y	Y	
195	b \sharp						Y			Y
215	B \sharp					Y	Y	Y	Y	Y

¹ In this table, Y means that the accidental was repeated.

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					Totals	20	15	22	20	30
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**Table 2 Errors and confusion arising from the use of scordatura in the sources for
BWV 1011¹**

Movement	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
Prelude	2		Y'		Y	
	8		Y			
	42	Y		Y	Y	
	84			Y		
	85		Y			
	116	Y				
	139		Y			
	142	Y		Y	Y	
	163		Y			
	182	Y				
	191		Y'			
	198		Y			
	199		Y			
Allemande	8		Y			
	9	Y				
Courante	13					Y
Gavotte I	7	Y	Y			
	16	Y				
	18		Y			
	20	Y				
	22		Y			
	23		Y			
	27	Y				
Gavotte II	13	Y				
Gigue	47	Y				
Total No. of errors		11	11	3	3	1

¹ In this table, Y means that the bar contains an error or confusion. Y' means that it is different from the error or confusion in another source for the same bar.

Table 3 Use of strings implied by the scordatura sources for BWV 1011

Movement	Bar	Explanation
Prelude	10	The first note of the 3 rd crotchet beat in C <i>Vienna</i> is a written g, implying use of the d string, the other scordatura versions imply the use of the top string. A change of string in the middle of a beat is usually considered to be undesirable, so the version given by C <i>AMB</i> and C <i>Berlin</i> seems to be superior.
	27	All of the scordatura sources have a chord sounding G, d, g with the g written to imply that it is to be played as a stopped note on the d string.
	84	The 2 nd note is written as g on the d string in C <i>AMB</i> and C <i>Vienna</i> , but as the open top string (sounding g) in C <i>Berlin</i> . C <i>Berlin</i> is not convenient for the cello, as the subsequent a \flat would logically be played on the d string.
	142	All of the Cello sources have a sounding g dotted quaver except C <i>Vienna</i> which omits the dot. If this note is played on the d string with the first finger, then it can be sustained while the semiquavers are played, but it should then be indicated as a written g in the scordatura sources.
Allemande	18	The first note of the bar is at the same pitch as the last note of the previous bar (except in C <i>Kellner</i> , which may be erroneous), but has been written in the scordatura versions for performance on the d string, presumably to make a difference in timbre with the previous bar.
	30	The first beat can be played as written in the scordatura versions on a cello tuned in scordatura, with the open d string accompanying the notes on the top string. However, this cannot be done on a cello in normal tuning - third position would have to be used, without the idiomatic use of the open d string.
Courante	20	The scordatura sources indicate that the chord at the start of the 3 rd beat should be played with the open top string, while the chord before should be played with the g on the d string, thus giving a softer effect more appropriate to this chord on a weak beat.
Gavotte I	12	For the chord before the double bar, all of the scordatura sources indicate a written a at the top of the chord, meaning that the open string should be played, sounding g, and thus permitting the open d string also to be played.
Gigue	8	On the first beat, the 3 scordatura sources indicate a written a, sounding g on the open top string, and g in unison on the d string. They thus indicate two notes of pitch g, one played on the open top string and the other on the stopped d string.

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Table 4 Errors and differences in the notes in the sources for BWV 1011 (not including confusions with the scordatura or issues unique to LCJSB concerning re-composition or texture)¹

Movement	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
Prelude	1	m	m	m	m	
	4	dif				
	5				t	
	6	dif				
	7			er	er	l
	9					l
	10	er		er	er	dif
	12		dif			
	13	dif				
	14					dif
	17		er			
	19	m	m			
	25					dif
	26					dif
	27		t			
	30	m	m			
	40					dif
	43					dif
	54		dif			
	55		dif			
	73					dif
	75					dif
	77		dif			
	84					dif
	85					dif
	86					dif
	87		er			m
	88					dif
	95		dif			
	98					dif
	99					dif
	102		dif			
	103	er				
	112	dif				
	114					dif
	127				dif	
	138		dif			

¹ The meanings of the codes used in this table are explained in section 4.3.1.

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Movement	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
	139				er	
	149					dif
	154		t			
	155		t			
	156					dif
	164	dif			dif	
	165		dif			
	170					dif
	171		t			
	173		dif			
	193		dif			dif
	201		m			
	203		dif			
	211		dif			
	218		m			m
	219					dif
	220	er				
	223					dif
Allemande	1		l			l'
	2					erl
	4	m	m	m	m	
	6					l
	7					l
	12				er	dif
	13	er				
	14		dif			
	15	m	m	m	m	er
	16	l				er
	17		dif			
	18					dif
	19		dift			erl
	20		l			
	21		erl			
	22					l
	23					l
	25		erl			l
	27					l
	28					erl
	29					l
	33		t	er		
	36		t		er	dif
Courante	3		dif			dif
	5	er	dift			dif
	8				er	

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Movement	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
	11		difl			l
	12	er				er'
	15		tt			ertdif
	16	t				
	18		dif			
Sarabande	16			dif		
Gavotte I	1	er				
	3		m			
	4					dif
	8	dif	dif			
	9		dif			
	11	m	mt	m	difm	
	12	er				
	13	er		er	er	
	15	er				
	17	er				
	20		dif			
	22					dif
	26		difert			dif
	29	dif			dif	
	31		dif			
	32		difdif			
	35					dif
Gavotte II	1	er				
	2		er			
	8		t			
	10	er		er	er	
	12	er				
	15	er	er	er	er	
	19	t				
	22	l				
Gigue	1					dif
	16					dif
	21	er				
	27					dif
	28					dif
	29	er				dif
	36	er				
	38			er		
	58			dif		
	64	er				
	66					d
	67					d
Total dif		7	26	2	4	38

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Movement	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
Total er		19	7	7	9	7
Total l		2	5			14
Total m		6	9	4	4	2
Total t		2	13		1	1

Table 5 Commonality of the notes between pairs of sources for BWV 1011 (derived from Table 4)

Pairs of sources	Quantity of cases where the pair agree with each other, and differ from the other sources
CKellner and LCJSB	9
CAMB and CKellner	2
CAMB and CVienna	1
CBerlin and CVienna	1
Other pairs of sources	0

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Table 6 Summary of the types of errors in the notes in each source for BWV 1011

Type of error		CAMB	CKellner	CBerlin	CVienna	LCJSB	Total
Note pitches	Wrong accidental		2	1	1	1	5
	Missing accidental	3	1	3	3		10
	Difference of a second	3	1	1	2	2	9
	Difference of a third	2		1	1		4
	Parallel octave or fifth					4	4
	Sub-Total for note pitches	8	4	6	7	7	32
Other errors in the notes	Missing tie	3	1	1	2		7
	Missing beat	1					1
	Wrong/Missing Bar-line		2				2
	Extra Note	1					1
	Duplicate bar	1					1
	Wrong note length	5					5
	Sub-Total for other errors in the notes	11	3	1	2		17
Grand Total		19	7	7	9	7	49

Table 7 Analysis of all errors in the notes which occur in the sources for BWV 1011¹

Analysis of the errors in the sources for BWV 1011						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
Prelude	7	y	y	x	x	y
		Description: On the first beat, CAMB, CKellner and LCJSB have a \flat (scord.b \flat , lute e \flat) as the upper note, forming a chord of F minor, while CBerlin and CVienna have a \sharp (scord.b \sharp). Category: Wrong accidental – CBerlin and CVienna NBA follows CAMB, CKellner and LCJSB				
	10	y	x	y	y	x
		Description: The first two notes are tied together in CKellner and LCJSB only, although this seems to be the only way in which the opening of this bar could be played. Category: Missing tie – CAMB, CBerlin and CVienna NBA follows CKellner and LCJSB				
	17	y	x	y	y	y
		Description: CKellner has e \sharp at the start of the third beat, while all of the others have e \flat . Category: Wrong accidental - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	87	y	x	y	y	y
		Description: For the 3 rd – 5 th semiquavers of bar 87, CAMB, CBerlin and CVienna have b \sharp – a \sharp – b \sharp (scord.c \sharp – b \sharp – c \sharp), while CKellner has b \sharp – a \sharp – b \sharp , and LCJSB has b \sharp – a \flat – b \sharp (lute f \sharp , e \flat , f \sharp). (the difference in LCJSB is discussed with the Dorian mode issues). Category: Wrong accidental - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	103	x	y	y	y	y
		Description: CAMB has a semiquaver as the first note, and therefore only 5 semiquavers in the bar, while all the other sources have a quaver. Category: Wrong note length - CAMB NBA follows CKellner, CBerlin, CVienna and LCJSB				
	139	y	y	y	x	y
		Description: CKellner has g \flat as the 2 nd note, but CAMB and CBerlin have a true a \flat intended to be played on the d string (not to be transposed), and LCJSB also has a \flat (lute e \flat). CVienna has g (scord.a). The g \flat given by CKellner seems to be a confusion with the scordatura, and is discussed in the corresponding section. Category: Missing accidental - CVienna NBA follows CAMB, CBerlin and LCJSB				
	220	x	y	y	y	y

¹ The meaning of the codes x and y in this table is explained in section 4.3.1.

Analysis of the errors in the sources for BWV 1011						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
		<p>Description: CAMB has 7 semiquavers, which is probably an error as all of the other versions have just 6 semiquavers. The 4th note of CAMB seems to be redundant.</p> <p>Category: Extra note - CAMB</p> <p>NBA follows CKellner, CBerlin, CVienna and LCJSB</p>				
Alle- mande	2	Y	y	y	y	x
		<p>Description: On the 4th beat, Bach has added a continuation of the lower voice in LCJSB, leading to the E\flat (lute B\flat) at the start of bar 3, and by this means he ensures a literal imitation of the upper voice in bar 1. However, as pointed out by Yates¹, LCJSB thus ends the bar with a bare octave on D (lute A) leading to the octave on E\flat in the next bar.</p> <p>Category: Parallel octaves - LCJSB</p> <p>NBA follows CAMB, CKellner, CBerlin and CVienna</p>				
	12	Y	Y	y	x	y
		<p>Description: CVienna omits the initial tie between the first and 2nd beats, while all of the other sources have the tie.</p> <p>Category: Missing tie - CVienna</p> <p>NBA follows CAMB, CKellner, CBerlin and LCJSB</p>				
	13	X	Y	y	y	y
		<p>Description: In CAMB, the semiquavers in the first beat should be demisemiquavers.</p> <p>Category: Wrong Note Length - CAMB</p> <p>NBA follows CKellner, CBerlin, CVienna and LCJSB</p>				
	15	Y	Y	y	y	x
		<p>Description: Bach has (perhaps accidentally) created parallel octaves in LCJSB with a C-B\flat (lute G-F) step in both the bass and middle voices, even though it is somewhat hidden by the trill.</p> <p>Category: Parallel octaves - LCJSB</p> <p>NBA follows CAMB, CKellner, CBerlin and CVienna</p>				
	16	Y	Y	y	y	x
		<p>Description: In all of the cello sources, the last note of the bar is f\sharp, while LCJSB has a chord of c, d, f\sharp, b\flat (lute g, a, c\sharp, f') has been written.</p> <p>Category: Difference of a 2nd - LCJSB</p> <p>NBA follows CAMB, CKellner, CBerlin and CVienna</p>				
	19	Y	Y	y	y	x
		<p>Description: The first chord in all of the scordatura versions is G, b\sharp, d' (scord.G, b\sharp, e'). In CKellner there is only the d', but in LCJSB the \sharp in front of the g (lute d') should almost certainly have been written in front of the b (lute f') one note higher in the same chord, as there would otherwise be both G and g\sharp (lute d and d\sharp) in the same chord.</p>				

¹ Yates, S. 1996.

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Analysis of the errors in the sources for BWV 1011						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
		Category: Wrong accidental - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	21	Y	X	y	y	y
		Description: CKellner is missing the bar-line between bars 20 and 21. Category: Missing bar-line - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	25	Y	X	y	y	y
		Description: The dot after the g at the start of the 3 rd beat in CKellner is probably intended to be a tie, as in the other sources. Category: Missing tie - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	28	Y	Y	y	y	x
		Description: At the end of the bar, LCJSB has a B \flat (lute F) after the crotchet C (lute G), while the cello sources only have the quaver f. Although it could be added for a cello performance, the B \flat forms parallel fifths with the upper voice, and may not be desirable. Category: Parallel fifths - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	33	Y	y	x	y	y
		Description: The first chord is given as G, f, b \sharp (scord.G, f, c \sharp ') in CAMB and CVienna, and LCJSB has the equivalent of the same notes. CKellner gives only f, b \sharp and CBerlin gives A \flat , f, b \sharp (scord.A \flat , f, c \sharp '), which seems to be an error as it does not form a logical chord. Category: Difference of a 2nd - CBerlin NBA follows CAMB, CKellner, CVienna and LCJSB				
	36	y	y	y	x	y
		Description: The dotted quaver at the start of the 2 nd crotchet beat is given as d in CVienna, and e \flat (lute b \flat) in the other sources. Category: Difference of a 2nd - CVienna NBA follows CAMB, CKellner, CBerlin and LCJSB				
Courante	5	x	Y	y	y	y
		Description: On the 2 nd beat, CAMB has semiquavers, whereas the other sources all have quavers. Category: Wrong note length - CAMB NBA follows CKellner, CBerlin, CVienna and LCJSB				
	8	y	Y	y	x	y
		Description: On the 1 st beat, CVienna has d as the lower note, while all of the other versions have e \flat (lute b \flat). Category: Difference of a 2nd - CVienna NBA follows CAMB, CKellner, CBerlin and LCJSB				
	12	x	Y	y	y	y
		Description: On the 2 nd minim beat, CAMB follows the dotted quaver with a quaver, which should be a crotchet.				

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Analysis of the errors in the sources for BWV 1011						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
		Category: Wrong note length - CAMB NBA follows CAMB, CKellner, CBerlin and LCJSB				
	12	y	Y	y	y	x
		Description: While the chord at the end of bar 12 is a bare octave on G in all of the cello sources, in LCJSB it is filled in with what appear to be A [♯] and d (written rather unclearly as lute e [♯] and a [♯]) and forming a rather unlikely chord equivalent to G, A, d, g. Category: Difference of a 2nd - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	15	y	Y	y	y	x
		Description: On the 3 rd minim beat, the cello sources are identical, having a chord A [♭] , e [♭] , c' (scord.A [♭] , e [♭] , d'), followed by a quaver d [♭] ' (scord.e [♭] '). However, LCJSB has the discord A [♭] , c, g (lute e [♭] , g, d'), followed by a c' dotted quaver and then a d [♭] ' semiquaver (lute g and a [♭]), and this is maintained in the Tablature version. LCJSB thus introduces a parallel fifth, between bars 15 and 16, owing to the changes noted here. Category: Parallel fifth - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
Gavotte I	1	x	y	Y	y	y
		Description: The second beat is missing completely in CAMB, although it is given as two quavers in all of the other sources. Category: Missing beat – CAMB NBA follows CKellner, CBerlin, CVienna and LCJSB				
	12	x	y	Y	y	y
		Description: CAMB has dots after the minim chord before the double bar, giving the bar too many beats. Category: Wrong Note Length – CAMB NBA follows CKellner, CBerlin, CVienna and LCJSB				
	13	y	x	Y	y	x
		Description: On the last crotchet beat, CAMB, CBerlin and CVienna have e [♭] ' (scord.f'), while CKellner and LCJSB have c' (lute g'). Category: Difference of a 3rd – CAMB, CBerlin and CVienna NBA follows CKellner and LCJSB.				
	15	x	y	y	y	y
		Description: On the 3 rd crotchet, CAMB has a chord c, e [♯] , a [♭] (scord.c, e [♯] , b [♭]), which seems to be unlikely here. All of the other sources have g (lute d') as the top note. Category: Difference of a 2nd – CAMB NBA follows CKellner, CBerlin, CVienna and LCJSB				
	17	X	y	y	y	Y
		Description: CAMB has B [♭] as the 6 th quaver, while all the other sources have A [♭] . Category: Difference of a 2nd – CAMB				

Analysis of the errors in the sources for BWV 1011						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
		NBA follows CKellner, CBerlin, CVienna and LCJSB				
	26	y	x	y	y	Y
		Description: This bar occurs at the end of a line in CKellner, but at the start of the next line Kellner has drawn a bar-line after only one minim beat, and corrected it later by inserting another single minim bar. Category: Wrong bar-line - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
Gavotte II	1	x	y	y	y	Y
		Description: CAMB does not have the crotchet tied to the next triplet quaver, which is in all the other sources. Category: Missing tie - CAMB NBA follows CKellner, CBerlin, CVienna and LCJSB				
	2	y	x	y	y	Y
		Description: The first triplet in CKellner is written one whole tone lower than in all of the other sources, and even the first note of the 2 nd beat is unclear. Category: Difference of a 2nd - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	10	y	x	y	y	X
		Description: The first note in CKellner and LCJSB is B [♯] (lute f [♯]), but B [♭] in all of the other sources. Category: Missing accidental – CAMB, CBerlin and CVienna NBA follows CKellner and LCJSB				
	12	x	y	y	y	Y
		Description: The 6 th note in CAMB is F, but G (lute d) in all of the other sources. Category: Difference of a 2nd - CAMB NBA follows CKellner, CBerlin, CVienna and LCJSB				
	15	y	y	y	y	x
		Description: All of the cello sources have the first flat in front of the e (a valid reminder because of the e [♯] in the bar before), the 3 rd note as d [♯] and the 5 th note as d [♭] . In the LCJSB, the first e (lute b) does not have a flat in front of it, but is in any case e [♭] (lute b [♭]) because of the key signature (the naturals come later in the bar), while the first d (lute a) has a flat in front of it. Category: Missing accidental – CAMB, CKellner, CBerlin, CVienna NBA follows LCJSB				
Gigue	21	x	y	y	y	y
		Description: CAMB has g as the last note of the bar, but all of the other copies have f (lute c'). Category: Difference of a 2nd - CAMB NBA follows CKellner, CBerlin, CVienna and LCJSB				
	29	x	y	y	y	y
		Description: CAMB contains a repeated bar 29. Category: Duplicate bar - CAMB				

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Analysis of the errors in the sources for BWV 1011						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
		NBA follows CKellner, CBerlin, CVienna and LCJSB				
	36	x	y	y	y	y
		Description: CAMB has e' (scord.f') at the start of the bar, while all of the other copies have eb' (scord.f', lute bb'). Category: Wrong accidental - CAMB NBA follows CKellner, CBerlin, CVienna and LCJSB				
	38	y	y	x	y	y
		Description: The 2 nd note of the bar is a rather unclearly written ab (scord.bb) in CBerlin, but ah (scord.bh, lute eh') in all of the other sources. Category: Wrong accidental - CBerlin NBA follows CAMB, CKellner, CVienna and LCJSB				
	64	X	y	y	y	Y
		Description: CAMB is the only source which does not have a tie from bar 64 to bar 65. Category: Missing tie - CAMB NBA follows CKellner, CBerlin, CVienna and LCJSB				
Total in bold		20	31	32	30	32

**Table 8 Overview of ambiguities concerning Dorian key signatures in the sources for
BWV 1011¹**

Movement	Bar	Preferred Solution	CAMB	CKellner	CBerlin	CVienna	LCJSB
Prelude	1	A \sharp	x	x	x	x	
	19	A \sharp	x	x			
	30	A \sharp	x	x			
	87	a \sharp					x
	201	A \sharp		x			
	218	Either a \flat or a \sharp		x			x
Allemande	4	A \flat	x	x	x	x	
	15	A \sharp	x	x	x	x	
Gavotte I	3	Either A \flat or A \sharp		x			
	11	a \sharp	x	x	x	x	
		Totals	6	9	4	4	2

¹ In this table, an x indicates that the bar contains an example of the ambiguity.

**Table 9 Details of ambiguities concerning Dorian key signatures in the sources for
BWV 1011¹**

Details of ambiguities concerning Dorian mode in the sources for BWV 1011						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
Prelude	1	y	y	y	y	x
		Description: The 3 rd semiquaver of the second crotchet beat is given as A \flat in all of the cello sources, but it is given as A \sharp (lute e \sharp) in LCJSB. NBA follows LCJSB				
	19	x	x	y	y	Y
		Description: On the last semiquaver of the 2 nd crotchet beat and on the 2 nd to last note of the bar, CAMB and CKellner have no accidentals and therefore appear to indicate A \flat as in the key signature, CBerlin, CVienna and LCJSB have A \sharp (lute e \sharp). NBA follows CBerlin, CVienna and LCJSB				
	30	x	x	y	y	y
		Description: CAMB and CKellner appear to indicate A \flat as the 2 nd note, while the other sources indicate A \sharp . NBA follows CBerlin, CVienna and LCJSB				
	87	y	Y	y	y	x
		Description: For the 4th semiquaver, all of the cello sources have a \sharp (scord.b \sharp), while LCJSB has a \flat (lute e \flat). CAMB is rather unclear in this bar. LCJSB is the source with the ambiguity (assumed Dorian key). NBA follows CAMB, CKellner, CBerlin and CVienna				
	201	y	x	y	Y	y
		Description: Bar 201 of the Prelude is very similar to bar 30 discussed above, and again CKellner has no accidental before the A. However, unlike bar 30, CAMB does indicate A \sharp here, so in this case CKellner is the only one of the sources which seems to indicate A \flat . NBA follows CAMB, CBerlin, CVienna and LCJSB				
	218	y	x	Y	y	x
		Description: The 2 nd note of the bar is a \sharp in all of the cello sources, but a \flat (lute e \flat) in LCJSB. NBA follows CAMB, CKellner, CBerlin and CVienna				
Alle- mande	4	y	y	y	y	x
		Description: All the cello sources have A \flat as the second note, but in LCJSB there is a sign which may be a natural in front of it, and this is also in LTAB. NBA follows LCJSB (not agreed here)				
	15	y	y	Y	y	x
		Description: All of the cello sources have A \flat in the chord on the 1 st beat of this bar, while LCJSB clearly gives A \sharp (lute e \sharp). NBA follows LCJSB				

¹ The meaning of the codes x and y in this table is explained in section 4.3.1.

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Details of ambiguities concerning Dorian mode in the sources for BWV 1011						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
Gavotte I	3	y	x	Y	y	y
		Description: CKellner does not have the natural sign in front of the quaver A at the end of the 2 nd crotchet beat, which is given in all of the other sources. NBA follows CAMB, CBerlin, CVienna and LCJSB				
	11	y	y	Y	y	x
		Description: In the 3 rd crotchet beat, the second quaver is a \flat (lute e \flat) in LCJSB, but a \flat (scord.b \flat) in all of the cello sources. NBA follows LCJSB				
Total in bold		3	2	5	5	6

Table 10 Number of occurrences of each category of difference in the notes in the sources for BWV 1011 which are neither (necessarily) errors nor differences due to the Dorian mode

Types of difference	CAMB	CKellner	CBerlin	CVienna	LCJSB	Total
Difference of a second	5	14	1	3	2	25
Difference of a third		2		1	1	4
Difference of more than a third					3	3
Substantially different		4			27	31
Added Accidental					3	3
Missing Accidental	1	3				4
Different Accidental	1	3	1		2	7
Rhythm/Note Length	2	5			14	21
Texture	2	13		1	1	17
Totals	11	44	2	5	53	115

Table 11 Analysis of all differences between the sources for BWV 1011 which are not due to scordatura errors, copying errors, or confusions with the mode¹

Analysis of differences between the sources for BWV 1011 (not errors)						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
Prelude	4	x	y	y	y	y
		Description: On the 3 rd crotchet beat, CAMB indicates a chord B \flat , e \flat , CKellner has B \flat and an e with an accidental before it which might be intended to be a natural, CBerlin, CVienna and LCJSB have B \flat , e \sharp (lute f and b \sharp). Category: Missing accidental - CAMB NBA follows CKellner, CBerlin, CVienna and LCJSB				
	5	Y	y	y	x	Y
		Description: On the 1 st chord, CVienna has D which is not given in any of the other sources. At first sight it might seem to be an improvement as it forms a logical chord, and the D leads to the C on the next beat. However, the remainder of the bar is built on the tonic triad of F minor, and the low C on the second beat is actually a pedal note continuing from the C in each of bars 1-3 and continuing in bars 6-8, so D at the beginning of the bar would seem to be out of place. Category: Texture - CVienna NBA follows CAMB, CKellner, CBerlin and LCJSB				
	6	X	y	y	y	Y
		Description: At the end of the 3 rd crotchet beat, CAMB has a \flat semiquaver (scord.b \flat), while all the other sources have g. Category: Difference of a 2nd - CAMB NBA follows CKellner, CBerlin, CVienna and LCJSB				
	7	y	y	y	Y	X
		Description: LCJSB has sharper dotting in the third crotchet beat. Category: Note Length - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	7	y	y	x	X	Y
		Description: On the 1 st beat, CAMB, CKellner and LCJSB have a \flat (scord.b \flat , lute e \flat) as the upper note, while CBerlin and CVienna have a \sharp (scord.b \sharp). Category: Added accidental – CBerlin and CVienna NBA follows CAMB, CKellner and LCJSB				
	9	Y	y	y	y	X
		Description: LCJSB has sharper dotting in the first crotchet beat. Category: Note Length - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	10	Y	y	y	y	X
		Description: LCJSB has an added natural in last beat Category: Added accidental – LCJSB				

¹ The meaning of the codes x and y in this table is explained in section 4.3.1.

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Analysis of differences between the sources for BWV 1011 (not errors)						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
		NBA follows LCJSB (seems to be no particular reason to do so)				
	12	Y	x	y	y	Y
		Description: The semiquaver at the end of the 3 rd crotchet beat in CKellner is ab. All the other sources give g (scord.a, lute d'). Category: Difference of a 2nd - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	13	X	y	y	y	Y
		Description: The last note of bar 13 is given in CAMB as g (scord.a), but is f (lute c') in all the other sources. Category: Difference of a 2 nd – CAMB NBA follows CKellner, CBerlin, CVienna and LCJSB				
	14	Y	y	y	y	X
		Description: On the 1 st beat, LCJSB has db' (lute ab') as the top note of the chord, while all of the other versions give d' (scord.e'). Category: Added Accidental - LCJSB NBA follows LCJSB				
	25	y	y	Y	y	X
		Description: LCJSB is very unclear on the 3 rd crotchet beat. The cello sources give a crotchet d' (scord.e'), but LCJSB seems to indicate a triplet equivalent to c'-d'-c' (lute g'-a'-g'), with the last c' slurred to the d' at the beginning of the next crotchet beat. Category: Substantial Difference - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	26	y	y	Y	y	X
		Description: The cello sources all have an f [♯] semiquaver at the end of the 1 st crotchet beat, but LCJSB has a descending group of 3 demisemiquavers, to be played as a triplet because they are preceded by a dotted quaver, and forming a kind of 'turn' ornament. Category: Substantial Difference - LCJSB NBA follows CAMB CKellner, CBerlin and CVienna				
	27	y	x	Y	y	Y
		Description: In CKellner, there is no d on the first beat, so there is a bare octave G, g which recalls the bare octave C, c at the opening of the movement. All the other cello sources have G, d, g. Category: Texture - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	40	y	y	Y	y	X
		Description: The pitches of the last two notes in LCJSB are reversed compared to the cello sources, which gives a quite different musical effect. Category: Substantial Difference – Reversal of Notes - LCJSB NBA follows CAMB CKellner, CBerlin and CVienna				
	43	y	y	Y	y	X
		Description: In LCJSB, there is a sign which resembles a natural above the				

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Analysis of differences between the sources for BWV 1011 (not errors)						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
		3 rd note, and seems to be intended to apply to the 4 th note, making it e ^b (lute b ⁴). All of the cello sources have e ^b here. Category: Different Accidental - LCJSB NBA follows CAMB CKellner, CBerlin and CVienna				
	54/ 55	yy	xx	Yy	yy	yy
		Description: The melody notes in these two bars are reversed in CKellner compared to the other sources, although the bass line is the same in all of the sources. Someone seems to have noticed this and attempted to 'correct' it by inserting what appears to be a '2' above and then '1' below these bars respectively (apparently in different handwriting), and certainly some change is needed for performance because it is not possible to play the c and G simultaneously as shown in CKellner in bar 54. Category: Substantial Difference (2 bars) - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	73	y	y	Y	y	x
		Description: In LCJSB, the first note is d (lute a), while it is g (scord.a) in all of the cello sources. Category: Difference of more than a 3 rd - LCJSB NBA follows CAMB CKellner, CBerlin and CVienna				
	75	y	y	Y	y	x
		Description: The first note is b ^b (lute f') in LCJSB, while it is e ^b in all of the cello sources. Category: Difference of more than a 3 rd - LCJSB NBA follows CAMB CKellner, CBerlin and CVienna				
	77	Y	x	Y	y	y
		Description: In CKellner, the last three notes are a third higher than in the other sources. The other sources have a simple scale lead into the next bar which seems to be superior. Category: Substantial Difference - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	84- 86	Y	y	Y	y	x
		Description: LCJSB has been re-composed for bars 84-86 by introducing a new motif with three descending arpeggiated semiquavers at the beginning of each bar. Category: Substantial Difference – change affecting the pulse - LCJSB (3 bars) NBA follows CAMB, CKellner, CBerlin and CVienna				
	88	Y	y	Y	y	x
		Description: LCJSB has been re-composed, emphasising the lower and middle voices more than in the cello sources. Category: Substantial Difference – voice leading - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	95	Y	x	Y	y	y

Analysis of differences between the sources for BWV 1011 (not errors)						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
		Description: CKellner has A [♮] as the 4 th semiquaver, while all of the other sources have B [♮] (lute f [♯]). Category: Difference of a 2nd - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	98- 99	Y	Y	y	y	x
		Description: In LCJSB, in bar 98, the 3 rd and 4 th notes have been reversed, and also the 5 th and 6 th notes compared to the cello sources. Similarly, the first two notes of bar 99 have also been reversed. Category: Substantial Difference – change affecting the pulse - LCJSB (2 bars) NBA follows CAMB, CKellner, CBerlin and CVienna				
	102	Y	X	y	y	y
		Description: CKellner has d' as the first note, whereas all of the other sources have e ^b ' (scord.f', lute b ^b '). Category: Difference of a 2nd - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	112	X	Y	y	y	y
		Description: CAMB has A [♮] as the 4 th note, while all of the others have A ^b . Category: Different accidental - CAMB NBA follows CKellner, CBerlin, CVienna and LCJSB				
	114	y	Y	y	y	X
		Description: LCJSB has an extra c (lute g) semiquaver which acts as a passing note between the first note of the bar and the following d (lute a). Category: Substantial Difference – change affecting the pulse - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	127	y	Y	y	x	Y
		Description: The last note of the bar is g (scord.a) in CAMB and CBerlin, a ^b (scord.b ^b) in CVienna, g (lute d') in LCJSB and unclear in CKellner between a ^b and g (appears to have been corrected, but from what note to what note?). Category: Difference of a 2nd - CVienna NBA follows CAMB, CBerlin and CKellner				
	138	y	X	y	y	y
		Description: The 2 nd semiquaver in CKellner is a little unclear, but seems to be e ^b (which would be musically possible, forming the main Fugue motif). All of the other sources, however, have d (lute a). Category: Difference of a 2nd - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	149	Y	Y	y	y	x
		Description: In LCJSB, this bar contains an arpeggio instead of the scale fragment in the cello sources, and ends on B ^b (lute f) instead of G. Category: Substantial Difference – voice leading - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	154/	yy	Xx	Yy	yy	yy

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Appendix

Analysis of differences between the sources for BWV 1011 (not errors)						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
	155	Description: CKellner is written here (and in other places in this suite) using a staff with 6 lines, which may have confused Kellner, because he has written the last note of bar 154 and the first note of bar 155 on 2 lines of the staff. Category: Texture (2 bars) - Thirds introduced, perhaps as a correction - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	156	y	Y	Y	y	x
		Description: LCJSB has the last two notes of the bar reversed compared to the cello sources, naturally forming two groups of three notes. Category: Substantial Difference – change affecting the pulse - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	164	x'	Y	Y	x	y
		Description: The 2 nd note of the bar is given as a \flat in CAMB (scord.b \flat), b \flat in CKellner, CBerlin and LCJSB (scord.c', lute f'), and c' in CVienna (scord.d'). Category: Difference of a 2 nd – CAMB and CVienna NBA follows CKellner, CBerlin and LCJSB				
	165	y	X	y	Y	y
		Description: The 2 nd note of the bar is b \flat (scord.c \flat) in CAMB and CVienna, b \sharp (presumably meaning b \flat) in CKellner, b \flat (scord.c') in CBerlin, and b \flat (lute f') in LCJSB. Category: Different accidental - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	170	y	Y	Y	y	x
		Description: The first note is g (scord.a) in all of the cello sources, but a chord F \sharp , d (lute c \sharp , a) in LCJSB. Category: Difference of more than a 3 rd – LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna (not agreed here)				
	171	y	X	Y	y	y
		Description: Similar to bars 154 and 155, in the 2 nd beat of bar 171 CKellner has a chord f, a \flat while all of the other sources have f only (lute c'). Category: Texture - Thirds introduced, perhaps as a correction - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	173	Y	X	y	y	y
		Description: The 4 th note is given as a \sharp in CKellner, but a \flat (scord.b \flat , lute e \flat) in all of the other sources. Category: Different accidental - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	193	y	x	Y	Y	x
		Description: The 3 rd note is G in CBerlin and CVienna, and A \sharp in CKellner and LCJSB (lute e \sharp). CAMB is unclear between A \flat or G, but has no natural sign. Category: Difference of a 2 nd – CKellner, LCJSB NBA follows CAMB, CBerlin and CVienna (not agreed here)				

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Analysis of differences between the sources for BWV 1011 (not errors)						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
	203	y	x	y	Y	y
		Description: At the start of the 2 nd beat, CKellner has d [♯] , while the other sources have d [♭] (scord.e [♭] , lute a [♭]). Category: Missing accidental - CKellner NBA Follows CAMB, CBerlin, CVienna and LCJSB				
	211	Y	x	y	Y	y
		Description: CKellner has d [♯] for the 4 th note, while all of the other sources have d [♭] (lute a [♭]). Category: Missing accidental - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	219	Y	Y	y	y	x
		Description: The chord on the first beat is F [♯] , c, e [♭] in the cello sources, but has been changed in LCJSB to F [♯] , d, a, c' (lute c [♯] , a, e', g'). Category: Substantial Difference – voice-leading - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	223	y	Y	y	Y	x
		Description: In the last bar of the movement, the chord contains e [♯] in all of the cello sources, making it a C major chord with a Tiercé de Picardie, while in LCJSB it stays in C minor with an e [♭] (lute b [♭]). Category: Different Accidental – move away from Tiercé de Picardie - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
Alle- mande	1	y	x	y	Y	y
		Description: The upbeat is shown as a quaver in the CKellner, and a semi-quaver in all of the other versions. Category: Note Length - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	1	y	y	y	Y	x
		Description: LCJSB has sharper dotting in the first minim beat. Category: Note Length - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	2	y	y	y	Y	x
		Description: LCJSB has sharper dotting in the first minim beat. Category: Note Length - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	6	y	y	y	Y	x
		Description: LCJSB has sharper dotting in the first minim beat. Category: Note Length - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	7	y	y	y	Y	x
		Description: LCJSB has sharper dotting in the first minim beat. Category: Note Length - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	12	y	y	y	Y	x

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Analysis of differences between the sources for BWV 1011 (not errors)						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
		Description: LCJSB includes demi-semiquavers a \flat and g (lute e \flat ' and d') at the end of the 3 rd beat, while all the other sources have only a semiquaver g. Category: Substantial Difference – note added - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	14	y	x	y	y	y
		Description: CKellner has several significant differences in this bar compared to the other sources. On the 2 nd crotchet beat, it gives two equal quavers, whereas the other sources have a dotted quaver and a semiquaver. Furthermore, the last note of the 2 nd beat, and the whole of the 3 rd and 4 th beats, have different pitches and rhythm in CKellner. Category: Substantial Difference - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	16	x	y	y	y	y
		Description: In CAMB, the notes of the 4 th beat are two equal quavers, while in the other sources they are a dotted quaver and a semiquaver. Category: Note Length - CAMB NBA follows CKellner, CBerlin, CVienna and LCJSB				
	17	y	x	y	y	y
		Description: The last note of bar 17 is given as g (scord.a, lute d') in all of the sources except CKellner, which gives a \sharp , thus repeating the previous a \sharp in the same bar. Category: Difference of a 2nd - Repeated quaver after dotted crotchet - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	18	y	y	y	y	X
		Description: At the start of the 2 nd beat, LCJSB includes a c (lute g) appoggiatura, and this is followed by c and d (lute g and a) demi-semiquavers. None of these are given in the cello sources, which only have a dotted quaver and a semiquaver. Category: Substantial Difference – note added - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	19	y	y	y	y	X
		Description: LCJSB has sharper dotting in the first minim beat, and a semiquaver upbeat when the other sources have a quaver. Category: Note Length - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	19	y	x	y	y	Y
		Description: CKellner has a different upbeat (c' instead of d' (scord.e', lute a') in the other sources). Category: Difference of a 2nd - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	19	y	x	y	y	Y

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Analysis of differences between the sources for BWV 1011 (not errors)						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
		Description: After their upbeat d', all of the sources except CKellner have a chord of G, b ^b , d' (scord. G, b ^b , e', lute d, a, d', f [#] , a') on the first beat, but CKellner just has d'. Category: Texture - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	20	Y	x	y	y	y
		Description: In CKellner, the last beat is given as a quaver and two semi-quavers. All of the other sources indicate a dotted quaver and two demi-semiquavers. Category: Note Length - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	21	Y	x	y	y	y
		Description: In CKellner, the 3 rd beat is given as a quaver and two semi-quavers, while all of the other versions have a dotted quaver and two demi-semiquavers (although the dot is missing after the quaver in CAMB). Category: Note Length - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	22	Y	y	y	y	x
		Description: LCJSB has sharper dotting in the first minim beat. Category: Note Length - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	23	Y	y	y	y	x
		Description: LCJSB has sharper dotting in the first minim beat. Category: Note Length - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	25	Y	x	y	y	x
		Description: The rhythm of the 2 nd beat is different here in CKellner and LCJSB compared to the other sources. Category: Note Length - CKellner and LCJSB NBA follows CAMB, CBerlin and CVienna				
	27	Y	y	y	y	x
		Description: LCJSB has sharper dotting in the first minim beat. Category: Note Length - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	28	Y	y	y	y	x
		Description: LCJSB has different rhythm in the second crotchet beat. Category: Note Length - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	29	Y	y	y	y	x
		Description: LCJSB has sharper dotting in the first minim beat. Category: Note Length - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	33	Y	x	y	y	y

Analysis of differences between the sources for BWV 1011 (not errors)						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
		<p>Description: The first chord of the bar is given as G, f, b\sharp in CAMB, CVienna and LCJSB (scord.G, f, c\sharp, lute d, c', f\sharp), thus forming a dominant 7th of C minor. CKellner gives only f, b\sharp. CBerlin contains an error in the chord, having A\flat in the bass.</p> <p>Category: Texture – CKellner</p> <p>NBA follows CAMB, CBerlin, CVienna and LCJSB</p>				
	36	y	Y	y	y	x
		<p>Description: Extra notes have been added to LCJSB to smoothen the descending 3rds in the second crotchet beat, turning them into written-out appoggiaturas.</p> <p>Category: Substantial Difference – note added - LCJSB</p> <p>NBA follows CAMB, CKellner, CBerlin and CVienna</p>				
	36	y	X	y	y	y
		<p>Description: The last chord is shown as C, G, e\flat, c' (scord.C, G, e\flat, d') in CAMB, CBerlin and CVienna, while CKellner gives c, e\flat, g, c' (the top note is slightly unclear and could have been intended to be a d', although that seems unlikely for the final chord of the movement), which may have been like this in the source available to Kellner. LCJSB gives C, c, e\flat, g, c' (lute G, g, b\flat, d', g') which is actually the same as CKellner apart from the extra C.</p> <p>Category: Texture – Re-arranged chord - CKellner</p> <p>NBA follows CAMB, CBerlin, CVienna and LCJSB</p>				
Courante	3	y	X	y	y	x
		<p>Description: The bass note on the 1st beat in CAMB, CBerlin and CVienna is C, while LCJSB has E\flat (lute B\flat), and CKellner is rather unclear but also gives what appears to be E\flat.</p> <p>Category: Difference of a 3rd – CKellner and LCJSB</p> <p>NBA Follows CKellner and LCJSB</p>				
	5	y	X	y	y	y
		<p>Description: On the 1st beat, CKellner has only an e\flat dotted crotchet, while the other cello sources all give a 3-note chord of C minor and LCJSB gives a 4-note chord of C minor (lute G minor), doubling the C.</p> <p>Category: Texture – CKellner</p> <p>NBA Follows CAMB, CBerlin, CVienna and LCJSB</p>				
	5	y	X	y	Y	x
		<p>Description: CAMB, CBerlin and CVienna give d' (scord.e') as the second to last note of the bar. CKellner and LCJSB give c' (lute g') at this point, which seems to form a more logical scale segment.</p> <p>Category: Difference of a 2nd - CKellner and LCJSB</p> <p>NBA follows CKellner and LCJSB</p>				
	11	y	X	y	Y	x
		<p>Description: The last two notes of the second minim beat are quavers in CKellner and LCJSB, but a dotted quaver and a semiquaver in all of the other sources.</p>				

Analysis of differences between the sources for BWV 1011 (not errors)						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
		Category: Note Length - CKellner and LCJSB NBA follows CAMB, CBerlin and CVienna				
	11	y	X	y	Y	y
		Description: The last note of the bar is g in all of the sources (scord.a, lute d'), except CKellner which has a [♯] . Category: Difference of a 2nd - Repeated quaver after dotted crotchet - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	15	y	X	y	y	x
		Description: At the start of the 1 st beat, the scordatura versions have c, f as a quaver chord. CKellner gives G, c, f and LCJSB gives C, G, c, f (lute G, d, g, c'). Category: Texture – CKellner and LCJSB NBA follows CAMB, CBerlin, CVienna and LCJSB				
	15	y	X	y	y	x'
		Description: At the start of the 2 nd beat, CKellner has a chord which appears to be f, a ^b , c', which would be impractical on the cello. The scordatura sources have only a ^b (scord.bb), and an explicit rest for the lower voices. LCJSB has a chord c, e ^b , a ^b (lute g, b ^b , e ^b). Category: Texture – CKellner and LCJSB NBA follows CAMB, CBerlin, CVienna and LCJSB				
	15	y	Y	y	y	x
		Description: On the second crotchet of the 2 nd beat, all of the cello sources have the chord B ^b , d, g (scord.B ^b , d, a), which is a chord of G minor. However, LCJSB has B ^b , d ^b , g (lute f, a ^b , d'), which is a diminished 7 th chord on G, and this is also given in LTAB. Category: Substantial Difference – LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	16	x	Y	y	y	y
		Description: Only CAMB is missing the G on the 1 st beat. Category: Texture - CAMB NBA follows CAMB, CBerlin, CVienna and LCJSB				
	18	y	X	y	y	y
		Description: The last quaver of the 2 nd minim beat is f' in all of the sources (scord.g', lute c'') except CKellner which has e ^b '. Category: Difference of a 2nd - Repeated quaver after dotted crotchet - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
Sara- bande	16	Y	Y	x	y	y
		Description: The 5 th note in CBerlin is a ^b (scord.bb), while it is c' (scord.d', lute g') in all of the other sources. Category: Difference of a 2nd - CBerlin NBA follows CAMB, CKellner, CVienna and LCJSB				

Analysis of differences between the sources for BWV 1011 (not errors)						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
Gavotte I	4	y	Y	Y	y	x
		Description: On the 1 st beat, LCJSB has a written-out appoggiatura f (lute c') in the upper voice which is not given in the other sources, and also the C (lute G) is doubled in the first chord in a way which could not easily be played on the cello. Category: Substantial Difference – note added - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	8	y	X	Y	y	y
		Description: The 2 nd note of the upper voice is clearly written as b \flat in CBerlin and CVienna. In CAMB there is a written b, but it is unclear whether there is intended to be a flat before it or not (the flat seems to have been crossed out). CKellner has a \flat . LCJSB has b \flat (lute f'), suggesting that Bach may have intended a sounding b \flat as the 2 nd note in the cello versions also, and that this note is the only note of the bar in the scordatura sources which should be played on the d string of the cello. Category: Difference of a 2nd - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	8	x	Y	y	y	y
		Description: The 7 th note of the upper voice is a \sharp (scord.b \sharp , lute e \sharp) in all sources except CAMB which has a \flat (scord.b \flat). Category: Difference of a 2nd - CAMB NBA follows CKellner, CBerlin, CVienna and LCJSB				
	9	y	x	Y	y	y
		Description: On the 1 st beat, the chord given in CKellner is c, f, a \sharp . The chord given by the other sources is c, g, a \sharp (scord.c, g, b \sharp , lute g, d', e \sharp). Category: Difference of a 2nd - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB (not agreed here)				
	11	y	y	Y	x	y
		Description: On the 2 nd crotchet beat, all of the sources have a dominant chord B \flat , d, g (scord.B \flat , d, a, lute F, a, d') except CVienna which has B \flat , f, g (scord.B \flat , f, a), which is a dominant 7 th . Category: Difference of a 3rd - CVienna NBA follows CAMB, CKellner, CBerlin and LCJSB				
	11	y	x	Y	y	Y
		Description: On the 4 th crotchet beat, CKellner does not have the d (lute a) which is in all of the other sources. Category: Texture - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				

Analysis of differences between the sources for BWV 1011 (not errors)						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
	20	y	x	Y	y	Y
		Description: On the last chord of the bar, CKellner has a chord B \flat , d, g while all of the other sources have B \flat , e \flat , g (scord. B \flat , e \flat , A, lute f, b \flat , d'). Category: Difference of a 2nd - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	22	y	Y	Y	y	x
		Description: In LCJSB, the A \flat in the first half of the bar has been moved to the top voice (lute e \flat '), compared to the middle voice in the cello sources, perhaps to improve the voice leading. Category: Substantial Difference – voice-leading - LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	26	y	X	Y	y	x'
		Description: CKellner appears to have b \flat as the 7 th quaver, while the other cello sources have b \sharp (scord.c \sharp '). LCJSB cannot resolve this inconsistency because it has been re-composed in the second half of the bar, although it does end the bar with a b \sharp (lute f \sharp '). Category: Missing accidental - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	26	Y	X	Y	y	y
		Description: In CKellner there is an extra f crotchet on the 3 rd crotchet beat which does not appear in any of the other sources. Category: Texture - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	29	X	Y	Y	x	y
		Description: The last quaver of the bar is e \flat in CAMB and CVienna, but d (lute a) in all the other sources. Category: Difference of a 2nd – CAMB and CVienna NBA follows CKellner, CBerlin and LCJSB				
	31	Y	X	y	y	y
		Description: There is some confusion about the 1 st quaver of this bar. CAMB, CBerlin CVienna and LCJSB all indicate b \flat (scord.c'), but CKellner appears to have b \sharp – the accidental is not written very clearly, but it is certainly different from the flat at the start of the second minim beat, so it seems to be intended to be a natural. Category: Different accidental - CKellner NBA follows CAMB, CBerlin, CVienna and LCJSB				
	32	Yy	xx	Yy	yy	yy
		Description: There are two differences in CKellner compared to the other sources. Firstly, the bottom note of the 1 st chord is G in CKellner, but all the other sources have F (lute c). Secondly, the bottom note of the chord on the 2 nd minim beat is C in CKellner, but E \flat (lute B \flat) in all of the other sources. Category: Difference of a 2nd – CKellner Category: Difference of a 3rd - CKellner				

Analysis of differences between the sources for BWV 1011 (not errors)						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
		NBA follows CAMB, CBerlin, CVienna and LCJSB				
	35	Y	y	Y	y	x
		<p>Description: For the 3rd quaver of the 2nd minim beat, the cello sources have G, but LCJSB has c (lute g'), making a smooth scale fragment which improves the clarity of the voice leading.</p> <p>Category: Substantial Difference – voice-leading - LCJSB</p> <p>NBA follows CAMB, CKellner, CBerlin, CVienna</p>				
Gavotte II	8	Y	x	Y	y	y
		<p>Description: On the 1st beat, the three scordatura sources indicate g (scord.a) on the open top string, and a unison g played as a stopped note on the d string. LCJSB indicates a chord g, G₁ (lute D, d'). CKellner has a chord g, b\flat.</p> <p>Category: Texture - CKellner</p> <p>NBA follows CAMB, CBerlin, CVienna and LCJSB</p>				
	19	X	y	y	y	y
		<p>Description: In CAMB, there appears to be a spurious note c on the 6th quaver which may have been a mistake arising from confusion with the last note of the bar (in the manuscript this c appears a little fainter than the e\flat above it).</p> <p>Category: Texture - Thirds introduced, perhaps as a correction - CAMB</p> <p>NBA follows CKellner, CBerlin, CVienna and LCJSB</p>				
	22	X	y	y	y	y
		<p>Description: CAMB has a pause sign over the first crotchet of the bar, which is not in any of the other sources.</p> <p>Category: Note length - CAMB</p> <p>NBA follows CKellner, CBerlin, CVienna and LCJSB</p>				
Gigue	1	Y	y	y	y	x
		<p>Description: In all of the cello sources, the first two bars of the Gigue are identical, perhaps just because Bach wanted to establish the opening motif firmly by means of the repetition. Bach seems to have decided to re-compose this opening for LCJSB by transforming the motif of the first bar into that of the third bar (in this case with a descending 3rd), thus ensuring that bar 2 is not the same as bar 1. In LCJSB, bars 3 and 4 thus form an imitative voice after bars 1 and 2.</p> <p>Category: Substantial Difference – motif changed - LCJSB</p> <p>NBA follows CAMB, CKellner, CBerlin and CVienna</p>				
	16	Y	y	y	y	x
		<p>Description: LCJSB has d\flat' (lute a\flat'), which is not in any of the cello sources (which all indicate d' (scord.a')).</p>				

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Analysis of differences between the sources for BWV 1011 (not errors)						
Move- ment	Bar	CAMB	CKellner	CBerlin	CVienna	LCJSB
		Category: Added Accidental – LCJSB NBA follows CAMB, CKellner, CBerlin and CVienna				
	27- 30	Y	y	y	y	x
		Description: The rhythmical motifs of bars 27 and 29 have been reversed in LCJSB compared to the cello sources, and the note pitches are quite different. Category: Substantial Difference – motif changed - LCJSB (3 bars) NBA follows CAMB, CKellner, CBerlin and CVienna				
	58	Y	y	x	y	y
		Description: CBerlin has b \flat (scord.c'), while all of the other sources have b (scord.c \sharp , lute f \sharp). Category: Different accidental - CBerlin NBA follows CKellner, CAMB, CVienna and LCJSB				
	66- 67	Y	Y	y	y	x
		Description: In all of the cello sources, bars 65 and 66 form a descending scale leading down to the E \flat at the start of bar 67, from which there is an ascending arpeggio of major and minor 3rds leading to g at the start of bar 69. In LCJSB, the 3 semiquavers in bar 66 have been transposed down to F-E \flat -D \flat (lute c-B \flat -A \flat), and bar 67 starts with a chord E \flat , B \flat (lute B \flat , f). Category: Substantial Difference – LCJSB (2 bars) NBA follows CAMB, CKellner, CBerlin and CVienna				
Total in bold		21	12	24	21	30

Table 12 Number of occurrences of each category of difference in the notes of the sources for BWV 1006 compared to VJSB in the Gavotte en Rondeau which are not (necessarily) errors

Types of difference	VAMB	VKellner	LVJSB	Total
Difference of a 2 nd		4	1	5
Difference of a 3 rd			1	1
Difference of more than a 3 rd				
Substantially different			14	14
Added Accidental				
Missing Accidental		1		1
Different Accidental				
Rhythm/Note Length		1	1	2
Texture		1	83	84
Additional bar		1		1
Totals		8	100	108

Table 13 Number of occurrences of each category of difference in the notes of the sources for BWV 1006 compared to VJSB in Menuet I which are not (necessarily) errors

Types of difference	VAMB	VKellner	LVJSB	Total
Difference of a 2 nd				
Difference of a 3 rd				
Difference of more than a 3 rd				
Substantially different		1		
Added Accidental				
Missing Accidental				
Different Accidental				
Rhythm/Note Length				
Texture			12	
Additional bar				
Totals				

**Table 14 Quantity of each type of slur written explicitly in each movement of the
sources for BWV 1011**

Movement of BWV 1011	Slur	CAMB	CKellner	CBerlin	CVienna	LCJSB
First part of Prelude	over 2 notes	2	3	4	1	0
	over 3 notes	3	2	3	5	0
	over more than 3 notes	7	9	9	7	4
	Total	12	14	16	13	4
Fugue	over 2 notes	75	44	86	66	10
	over 3 notes	31	10	32	20	5
	over more than 3 notes	9	3	28	47	1
	Total	115	57	146	133	16
Allemande	over 2 notes	7	4	17	3	5
	over 3 notes	13	8	12	13	1
	over more than 3 notes	4	5	4	13	4
	Total	24	17	33	29	10
Courante	over 2 notes	13	6	11	7	8
	over 3 notes	10	5	8	4	1
	over more than 3 notes	0	2	8	17	1
	Total	23	13	27	28	10
Sarabande	over 2 notes	14		45	47	0
	over 3 notes	11		2	0	15
	over more than 3 notes	2		0	1	1
	Total	27		47	48	16
Gavotte I	over 2 notes	67	51	72	68	8
	over 3 notes	5	4	6	6	4
	over more than 3 notes	0	0	0	2	2
	Total	72	55	78	76	14
Gavotte II	over 2 notes	1	0	0	0	0
	over 3 notes	61	58	67	14	0
	over more than 3 notes	0	1	5	5	0
	Total	62	59	72	19	0
	over 2 notes	3		0	0	0

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Gigue	over 2 notes	3		0	0	0
	over 3 notes	6		9	7	0
	over more than 3 notes	10		10	12	0
	Total	19		19	19	0
Whole Suite	Grand Total	354	215	438	365	70

Table 15 Quantity of each type of slur written explicitly in the sources for the Gavotte en Rondeau and Menuet I of BWV 1006

Movement of BWV 1006	Slur	VJSB	VAMB	VKellner	LVJSB
Gavotte en Rondeau	over 2 notes	65	74	44	22
	over 3 notes	30	24	13	8
	over more than 3 notes	21	14	0	6
	Total	116	112	57	36
Menuet I	over 2 notes	3	3	5	2
	over 3 notes	12	6	2	1
	over more than 3 notes	0	4	4	0
	Total	15	13	11	3
Total for 2 movements	Grand Total	131	125	68	39

Table 16 Quantity of each type of ornament written explicitly in the sources for BWV 1011

Movement	Ornament	CAMB	CKellner	CBerlin	CVienna	LCJSB
First part of Prelude	mordent	0	0	0	0	1
	trill	3	2	3	3	2
	grace-note	0	0	4	4	4
	turn	1	0	0	0	0
	Total	4	2	7	7	7
Fugue	trill	1	1	3	2	1
	Total	1	1	3	2	1
Allemande	trill	8	11	10	10	10
	grace-note	1	1	10	8	14
	turn	0	0	0	0	1
	Total	9	12	20	18	25
Courante	mordent	0	0	0	0	1
	trill	3	5	7	8	5
	grace-note	2	2	5	5	8
	Total	5	7	12	13	14
Gavotte I	trill	0	1	0	0	0
	grace-note	0	0	5	5	0
	Total	0	1	5	5	0
Gigue	trill	1	0	7	7	2
	grace-note	0	0	3	2	2
	turn	0	0	0	0	1
	vibrato	2	0	2	0	0
	Total	3	0	12	9	5
Whole Suite	Grand Total	22	23	59	54	52

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Key for Table 17 and Table 18:

CA = CAMB CK = CKellner CB = CBerlin CV = CVienna LC =
LCJSB

Gr = grace-note Mor = mordent Tr = trill Tu = turn

Short note = note of less than one crotchet Long note = note of one crotchet or longer

Table 17 Consistency of ornaments in the Allemande in the sources for BWV 1011

Bar	1 st crotchet beat		2 nd crotchet beat		3 rd crotchet beat		4 th crotchet beat	
	Short note	Long note	Short note	Long note	Short note	Long note	Short note	Long note
2		LC gr					LC tr	
4					CB gr			
7							All tr	
8							LC gr	
11						CA, CB, CV, LC gr		
13						CK tr	CA, CB, CV, LC tr	
14		LC tu			CK gr	LC gr	CB, CV, LC tr	
15					All tr			
17						CK tr		
18			LC gr					
19					CK tr CB, CV, LC gr			
20					All tr CB, LC gr			
21		CB, CV gr			LC gr			
22		CB, CV, LC gr					All tr	
23					CB, CV, LC gr			
26						LC gr	All tr	
28						All tr		
30					CB, CV gr			
31	CA, CK, CB, CV tr LC gr							
32					CK tr CB, CV gr			

35	LC gr					CB, CV, LC tr		
36			CB, CV, LC gr					

Table 18 Consistency of ornaments in the Courante in the sources for BWV 1011

Bar	1 st minim beat		2 nd minim beat		3 rd minim beat	
	Short note	Long note	Short note	Long note	Short note	Long note
2		LC gr				LC gr
4				All gr		CK tr CB, CV, LC gr
8		CB, CV gr				LC gr
10						All tr
11				All gr		CB, CV tr
13						LC mor (tr?)
14		CB, CV, LC gr				
16		CA, CB, CV, LC tr				
18						CB, CV, LC tr
19						CB, CV, LC tr
21						CK, CB, CV, LC tr
23				CA, CB, CV tr LC gr		CK, CB, CV tr

Table 19 Quantity of each type of ornament written explicitly in each source for BWV 1006

Movement	Ornament	VJSB	VAMB	VKellner	LVJSB
Gavotte en Rondeau	trill	5	5	1	2
	grace-note	0	0	0	15
	Total	5	5	1	17
Menuet I	trill	0	0	0	1
	grace-note	1	1	1	9
	Total	1	1	1	10
Total for 2 move- ments	Grand Total	6	6	2	27

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